Childbirth 1994?

by Fiona Chin-Vee

THE AUTHOR

Fiona Chin-Vee, a member of the International Childbirth Education Association, spent her formative years in Ireland. The daughter of an anesthesiologist, she later studied sociology and government at Ahmadu-Bello University in Nigeria, before emigrating to Canada in 1974. She graduated BA from McGill University, majoring in Sociology, in 1977.

A well-travelled mother of three, Fiona here presents a consumer's alternative view of childbirth, with which some SOAP members (and the Editor's secretary) will disagree; but we have an obligation to listen.

At the end of 1984, I look to the future with trepidation. We have reached a critical point of our evolution, where the benefits and dangers of the new technologies stand on one side, and opposite them the people for whom they were, ostensibly, developed. They remain separated by the lack of any philosophy or ethic which can deal with their far reaching effects on society.

We have the ability to destroy all life and the ability to create new life forms. We can eradicate disease, but have developed lethal wastes and deadly bacteria. We are able to abort unwanted fetuses, or to freeze and transfer living human embryos into sterile women. We can transform the birthplace, so that all women have the possibility of a rewarding and fulfilling birth experience, or, with our devices, turn the mother into a mere fetal incubator, dehumanizing the birth process. Why are many women worried about the trends in modern obstetrics? What can we do to ensure a safe and gratifying birth for all mothers and babies? These questions must be addressed by all involved in maternal-infant care.

Today, many women get the message that birth is a complex medical event, and only sophisticated technology can assure a healthy baby. This technology, initially designed to facilitate the diagnosis and treatment of high risk mothers and babies, has now become routine for most healthy women and their babies, and many highly intrusive procedures now dehumanize labor. Internal and external fetal monitors, routine oxytocin induction, routine episiotomy, excessive use of epidural block, meperidine, or drugs to dull both mind and body to pain, have tainted childbirth and increased the use of forceps during delivery. The recent introduction of the '12-hour labor', in conjunction with increased cesarean section, is now used to make the process of labor a 'routine'. With the added use of cesarean section, to rescue distressed infants whose vital signs have been adversely affected, these procedures have become routine for most healthy women and their babies, and many highly intrusive procedures now dehumanize labor. Internal and external fetal monitors, routine oxytocin induction, routine episiotomy, excessive use of epidural block, meperidine, or drugs to dull both mind and body to pain, have tainted childbirth and increased the use of forceps during delivery. The recent introduction of the '12-hour labor', in conjunction with increased cesarean section, is now used to make the process of labor a 'routine'. With the added use of cesarean section, to rescue distressed infants whose vital signs have been adversely affected, the drugs used during their mother's labor, the use of surgery has increased to unprecedented levels. These routines, along with diminished mother-staff interaction, reduce the laboring woman to the status of an inefficient cog in an otherwise well-oiled machine. Many women question the use of these technologies; they question the lack of research that has been, and is being done, concerning the long term effects of these drugs on their children. They remember thalidomide and DES, and worry about increased numbers of children with mental retardation and learning disabilities.

As each procedure increases in physician popularity, it comes to be considered an essential tool in the production of 'normal' babies. In studies which have been done, technology gets the credit for the lower rate of infant morbidity, while variables such as improved nutrition and health, are excluded as insignificant. While these studies create skepticism in many women, they provide, for lawyers in the offices of malpractice insurance companies, the possibility of

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PRESIDENT'S COLUMN

Institutional Review Boards

by Robert Hodgkinson, M.D.

Members have asked me to comment on, and investigate your feelings about, Institutional Review Boards. One irate researcher describes them as cumbersome, time-consuming, exorbitantly expensive, and the cause of our poor and limited output of clinical research. If the last charge is true, there is indeed a big problem, since where a new and potentially better treatment is available, or an old therapy is of doubtful efficacy, our basic moral duty is to make the effort and evaluate them. Refraining from human experimentation rather than human experimentation is frequently the more disturbing ethical problem. To discover your feelings, a confidential questionnaire will be sent to you soon. In the meantime, I will endeavor to give background and perspective.

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routinizing labor and birth, of making uniform the experience of all mothers. In this way companies can cover their physicians, from every legal and technological angle, against the possibility of litigation brought on behalf of damaged infants and their families. The fear of litigation, founded and unfounded, has led to a drastic increase in the practice of defensive medicine in obstetrics. Mothers worry when they see the decision making process, once in the hands of parents, removed from them, from their physicians, and from the administration of the medical institutions, to the offices of some insurance company, possibly to the courts, and even a regulatory agency of government. Since we are allowing this shift of rights and responsibilities to government, we can perhaps assume that the future responsibility for the care of child, fetus or embryo, healthy or not, will also slip into the hands of ‘Big Brother’.

How is it possible to prevent birth becoming a complex technological procedure? How can we avoid making birth machines of mothers, and operatives and technicians of their doctors? To ensure this ‘1984’ scenario remains Orwellian, physicians, parents and society must make the necessary change in attitudes towards the maintenance of human dignity in childbirth. We must realign the education of caregivers and receivers of care. We must reassess the allocation of funds available for human needs and society’s technology.

All involved in maternal-infant care must cherish the philosophy that childbirth is a natural physiologic event. The development and use of medical technology, for diagnosis and treatment of problems in conception, pregnancy, and birth, should be reserved for high risk mothers and their infants, and should be used sparingly. We must continually remind ourselves of the dignity of human life, and the respect human beings should show another. We must see laboring mothers as individuals, and assess their needs accordingly. Birth is a natural event; it is normal for the majority of women to feel intense pain, especially towards the end of their labor. Most women, given an emotional and understanding support in a holistic and continuous manner, can overcome the fear which turns labor into a nightmare. Many women want to experience labor without the use of drugs, not because they are masochistic, but because they realize no drugs are proven safe for their babies. They want to feel healthy and alert for those emotionally charged hours after birth, when they can begin to express their love and affection for the baby who has been growing within them for nine months.

Since birth is a natural event, rather than a medical problem, the addictive role of the care providers should be stressed in the education of all medical personnel. Women need only to be accompanied by professionals who understand the natural physiologic process of birth, and who respect a woman’s ability to bear a child. It is generally sufficient for women to have the assurance the specialist trouble-shooters are there, in an emergency.

The most complex problem in all maternal infant care facilities is the manipulation of funds. A delicate balance must be met, so the needs of high risk mothers and babies are not fulfilled at the expense of those who require primary care. Since all funding is a ‘zero sum’ game, money used to acquire vast quantities of sophisticated technology will detract from the money to provide support personnel, be they certified midwives, monitors, prenatal instructors or nutritionists. Whatever the money is spent on, there seems to be a preoccupation to use it to its full capacity to justify its expense. Therefore, if expensive ultrasound facilities are purchased, together with many fetal monitors and increased operating room capacity, we can expect a high cesarean section rate. If the money were spent training nurse midwives on extending the role of community health and education services, or providing family follow-up programs, we could expect a healthier, more educated society, which would assume the right and responsibility for a direct say in decisions affecting procreation.

Through the ‘90’s we can expect the new technology to revolutionize our lives, as did the wheel in ancient times. Like the wheel, it has not the ability of itself to improve the lot of mankind. This can only be done by people standing back and looking at technology, not as a panacea but as a simple tool, by our being brave enough to look into the lives of other human beings and work towards affecting change; change which will create an equitable society, where peace, dignity and freedom of choice can flourish.

EDITORIAL

Women’s Issues

When a glance at SOAP’S membership list revealed that the majority of our members spend much of their professional time caring for the opposite sex, it seemed appropriate to invite the minority of women who work with women friends, acquaintances and relatives as they transition to motherhood, to share their wisdom, to discuss their informed, and sometimes experienced feelings. In her abstracted Personal View, Page 9, Rosemary Macdonald, an anesthesiologist and mother, emphasises that ‘every woman who has children deserves, and to be there in case she needs help. My yardstick shall be my conscience, the diligent, often unrewarded, efforts of my many peers, who seek to answer one of the questions Bob Hodgkinson poses: “Is a new, and potentially better, treatment available; is the old therapy of doubtful efficacy”; and, grudgingly, peer review. When my professor (or, maybe, patients) tell me it’s time to go, I hope I shall not long delay. As for my legal acquaintances I invite them to go elsewhere!

For the record, fellow members, if you ask what prompted this diatribe, I direct you to the recent revelations of Milan Korcok in a recent issue of the Canadian Medical Association Journal. Indeed, according to Korcok, the American Medical Association estimates that the American health insurance industry, including medical malpractice insurance, now collects billions of dollars in premiums, spends over two thirds of the money on legal and administrative expenses, and pays the remaining one-third on average seven years after the injury, frequently to the wrong people in the wrong amount, after a bruising and acrimonious ordeal for all involved, is a system crying out for improvement. It is time for us to call a halt.

“There is a wealth of literature available on the subject of childbirth” writes Nancy Sorel in the introduction to her book ‘Ever Since Eve’, reviewed elsewhere in the Newsletter. Indeed, one doubts if such undiscerning consumerism, as affects the expectant mother, exists anywhere else. The mother’s consumption of old wives’ tales, and digestion of birthing literature, defies explanation, save as another dietary ‘fad’. Childbirth and pregnancy, it seems, provoke an attack of the ‘dying man’ syndrome, a clutching at any straw which promises success and, above all, an end to pain.

Where do SOAP members, providers of obstetrical care in its many facets, fit into the complex canvas painted by Rosemary Macdonald, Fiona Chin-Yee and Nancy Sorel? I believe, first, as listeners, and we shall ignore at our peril the feminine voices

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old local anesthetic for spinal anesthesia the risk is that of using the new agent not the risks of spinal anesthesia. The National Commission for the Protection of Human Subjects of Biomedical and Behavioral Research 1977 and 1978 (DHEW Pub. No. [OS] 77.0004 and 78.0009) argued forcefully against a package analysis in which all risks and benefits are lumped together. Justice in distributing risks and benefits in many areas requires that a Spanish translation of the consent form be prepared before the clinical trial starts. Oddly, while they insist the English version is in simple language, they will not usually approve the colloquial Spanish spoken in much of the U.S. It is in fact easy in Texas to obtain a translation into Mex-Tex which the patient understands, but difficult to find someone who writes good Spanish. Although an ardent support of IRBs, I must agree with some of the criticisms of members which include the following:

1. Costly delays occur in approving protocols. Even a small research team consisting of a fellow, research nurses, and supporting staff, and not including regular medical staff, may need $5000 to $10,000 a month to cover salaries. If a committee keeps this team unemployed for 3 months the cost may amount to 20-50% of total research costs. In addition, there is the frustration of all concerned.

2. Even the most insipid, harmless trials are not approved, and delayed or their scientific worth reduced. For example, the protocol for the multi-center double-blind trial of cimetidine with Maalox to reduce gastric volume and acidity prior to elective cesarean section (Hodgkinson R, et al. Anesthesiology 1983) ran into difficulties, despite the fact that both treatments were widely used in U.S. hospitals, it was not known which was more effective and it was difficult to imagine any risk arising from the double-blind nature of the study. Social and ethical issues do not stop IRB's from approving the protocol until about a year later, when other investigators had completed their work, and one did not permit double-blinding of the medication. Since a number of the parameters, including the crucial issue of reduction in gastric volume, were subject to bias, the work performed at that eminent center was rejected from the final analysis of results.

The necessity for reform is obvious. The following are initial suggestions:

1. It should be compulsory for the IRB to notify investigators in writing that their protocols have been approved or rejected within a month of submission. It follows the committee must meet weekly instead of monthly or bimonthly. Their work is too vital for the future of clinical research to allow procrastination. The time has long since gone when research was a part-time hobby. For many medical school personnel it is a full-time occupation, and for others critical to their promotion. For the sophisticated academic, the crucial question to ask when applying for a new post is how quickly does the IRB act. Deans and department chairpersons should realize the best researchers will be drawn to those institutions which encourage research by speeding IRB reviews, and not those paying the highest salary.

2. Reduce the size of committees. An audience of 15-20 members is too large a captive audience for the compulsive talkers of this world. The time has long since gone when research was a part-time hobby. For many medical school personnel it is a full-time occupation, and for others critical to their promotion. For the sophisticated academic, the crucial question to ask when applying for a new post is how quickly does the IRB act. Deans and department chairpersons should realize the best researchers will be drawn to those institutions which encourage research by speeding IRB reviews, and not those paying the highest salary.

3. Make committees more representative, as in fact was recommended by the National Commission. At the moment, the typical composition is about 18 members from various academic departments of medicine plus 1 or 2 token lay members usually clergymen or school teachers. This is not representative of medicine or society, and in practice includes all the great talkers and none of the "shutters-up", who create those "ugly" pauses when thought is possible! Non-academic physicians and surgeons, businessmen, trade unionists, etc. would not only make the system more representative, but might add urgency to the deliberations.

4. A higher court of appeal at a state or national level should be available for disgruntled investigators. To me IRBs fulfill an essential role in medicine. However, many members of SOAP are violently antagonistic in view of the endless, costly delays. A questionnaire will be sent to you to ascertain your views and list specific instances of delay, etc. It will be confidential, but the results will be summarized both for your interest and in the hope you will agitate against the worst aspects of the system.
MORE FROM SAN ANTONIO

The Feminine Angle

by Virginia Williams, Seattle

Our recently ordained Newsletter Editor solicited me in San Antonio (!) and requested this brief overview of the 1984 SOAP meeting, written from "The Feminine Angle". (Although admittedly a loaded request, how could one refuse such an offer?) I draw your attention in advance to Des Writer's interpretation of the appropriate feminine angles. (Fig. 1)

The abstract book was well organized, easy to read, and properly indexed. No abstracts were included from a 'submitted but not presented' category, but many authors were asked to submit their work as scientific exhibits, some of which Larry Reisner reviewed in our Summer Issue.

DIRECT ME TO THE W.C.

Unfortunately these exhibits and posters were relegated to a small, unairconditioned area adjacent to the lecture hall, or were positioned on the wall across from the washrooms; as a consequence of this location many quality endeavors were examined by fewer people than expected, and their viewing depended on the fullness of registrants' bladders.

The restaurant and sightseeing guide were helpful additions to the abstracts booklet and served to emphasize SOAP's social delights. The lecture hall was spacious and comfortable, the slides were visible, and the speakers audible even from the last row.

GET IT RIGHT GUYS

The paucity of obstetrical and neonatal input this year was striking, and for me seriously diminished the overall quality of the meeting. If we are to be a society composed of three specialty areas caring for mother and child, we must maintain a reasonable level of participation by each group. If material is not voluntarily contributed by obstetrical and neonatal persons, the program chairman should actively solicit material from them. (Fig. 3)

The "What's New" sections of the program were most disappointing: not in what was presented, but rather in what was not. The Neonatology update had been dropped altogether (by the neonatologist who agreed to present it) and the other two were shortened to one-half hour each, hardly time to cover any meaningful ground when dealing with such topics. I have found these lectures to be valuable refresher courses delivered by experts intimately familiar with the literature, who are in a position to assess honestly the relative worth of new innovations in their field, as well as provide a follow-up on older work.

THE OFFICIAL AIRING OF DIRTY LINEN

The breakfast panel discussions were delightful. Despite the early hour, the lecture hall was crowded. The questions and comments from the audience were far more sophisticated and thought provoking than those usually submitted to similar panels at the ASA. Don't we all just love to hear "the authorities" admit how they personally handle difficult situations (especially if the resident has left the room to answer a phone call) in which there is no one ideal solution to the problem? Female input amongst the panelists was noticeably diminished, and there was no contribution from obstetrics or neonatology.

THE RAIN IN SPAIN FALLS MAINLY IN THE PLAIN

The Hehre lecture was as expected, a thoughtful, informative presentation by a gentleman and a scholar. Say no more, say no more. (Fig. 4)
SAFETY HAZARDS DEPARTMENT

SOAP's social functions are enjoyable for me, because they are oriented towards individuals rather than couples, thereby appealing to singles as well as those accompanied by spouse/spouse equivalents. The wine and cheese icebreaker (ice in San Antonio!) remains a great way to renew old friendships and arrange dinner plans. The short supply of white wine was clearly aimed at saving would-be overindulgers, who for the sake of propriety shall remain nameless, from themselves.

HOLY CHIHUAHUA, LOOK AT THOSE JALOPENAS

The banquet was sold out before the conference began so that not all who wished could attend. The lucky attendees were treated to a “titillating” experience by Buxom flamenco dancers who gave us a glimpse of local talent early during the meal. As usual with seated affairs, individual meals varied from hot to cold, and under- to over-done, depending on one’s position at the table and proximity to the kitchen. The service was brisk, and the price reasonable thanks to the pharmaceutical subsidy.

Two things seemed lacking that evening, however. The first was hearing the names of the “Fun Run” winners. Since the race wasn’t held until the next morning, I must admit such an announcement would have seemed a bit premature at that stage. The second was the missed opportunity for the collected group to thank Dr. Hodgkinson and coworkers for all the hard work they had invested in organizing the week’s events. As a matter of fact, we never did thank him publicly. There were no speeches after dinner. Ole.

The banquet was over too soon for some, but the evening was prolonged into the wee morning hours by others, by taking the pleasant strolling path up and down the river, stopping at sidewalk cafes and listening to mariachi bands. Informed sources later reported seeing certain Canadians from both sides of the continent lifting a glass or three (or was it more) of draft Guinness in Durty Nelly’s Irish Pub, while crooning (allegedly) Irish melodies. (Fig. 5)

The hour was far too early to encourage much spectator support. The panel discussion, which followed hard on the heels of this event, allowed some erstwhile participants to excuse themselves from running, on the grounds they might miss the panel discussion. One of these same individuals was later noted by the moderator to be sleeping whilst sitting on the panel, despite not showing up for the run. Tsk, tsk. (Fig. 7)

FIGURE 7

ALAMO AND ALL

The tours of the local sights appeared to be the least well-received part of the social schedule. (Since I did not go on any of them my information may be unreliable!). They were organized independently in order to cut the cost somewhat, but were poorly narrated and generally a disappointment. Perhaps Grayline would have been a better choice.

CHILE TODAY, HOT TAMALE

The lovely hotel and terrific weather contributed most positively to an enjoyable social milieu for either poolside people-watching or independent touring. Our clever past president (Fig. 8) managed to buy several rounds of drinks by the pool for his bevy of bikini-clad young lovelies (plus a few old goats) and put the entire tab on the room service bill of his junior faculty women. Those administrators knew all the tricks.

FIGURE 8

ONCE MORE WITH FEELING

Despite the minor irregularities inherent in most organizational endeavors, the SOAP meeting continues to be an overall positive event for participants. The material presented consists not only of new ideas unveiled for our perusal, but also of familiar tenets reexpressed. The speakers were of both waxing and waning superstar status, and several fledgling investigators addressed an audience of supportive individuals. Speaking from the feminine angle (and as a true SOAP enthusiast), I must congratulate the planner and executors of the 1984 San Antonio meeting for the obvious care and tremendous efforts involved. Thank you, Dr. Hodgkinson and company.

FIGURE 6
TIME AND PLACE
SOAP's 1985 meeting will be held from Thursday, May 9, through Sunday May 12 at the Mayflower Hotel. Long a historical landmark of the city with the distinction of hosting Inaugural Balls since the time of Calvin Coolidge, the Mayflower's reputation for plush, traditional accommodations and personal comfort, has been enhanced by an extensive $55 million restoration throughout the hotel. SOAPers in the hotel will enjoy the extraordinary personal services and amenities which set the Mayflower apart. Situated on fashionable Connecticut Avenue Northwest, in the heart of the city, the hotel provides guests with easy access to all the action and attraction of the nation's capital. Within four blocks of the hotel, you will find the White House, The Renwick Gallery, major governmental and office buildings, the city's finest restaurants and night spots. Enjoy delicious continental and American cuisine in the old-world European charm and ambiance of the Cafe Promenade, for breakfast, lunch, or dinner. Town & Country provides a club-like atmosphere for lunch and cocktails, with evening piano bar. The Lobby Bar is a favorite place to meet friends coming in from out of town. Enjoy a 24 hour room service.

REGISTRATION
Hotel registration cards will be sent to all members on receipt of the completed annual Meeting Registration Forms, which have been mailed separately. Hotel daily rates (special for SOAP) are $80.00 single and $90.00 double, and will be in effect May 3rd through May 13th for those who wish to spend more time in the nation's capital. The block of rooms will be held until April 18, 1985, after which reservations will be on a space available basis. REGISTER EARLY!

FOR MEETING REGISTRANTS
A continental breakfast will be served each morning, Thursday through Sunday, and on Saturday and Sunday these get-togethers will be accompanied by a discussion period.

WASHINGTON, D.C.... Government, Politics, Higher Education, Medicine, Science, Art, Architecture, Culture, Music, Exotic Foods, International Community, Theater, Sports, Parks and now Obstetric Anesthesia! An exciting, vital city. The nation's capital has everything! For art lovers, the National Gallery and Smithsonian museums contain the finest art collections to be found anywhere. Other museums, all within a few minutes of the Mayflower Hotel, will satisfy the tastes of adults and children, with their widely varied exhibits of art, science, culture and civilization. The Air & Space Museum will please the oldest and youngest in your family.

FOR THE CULTURE BUFFS
If history or government is your interest, you will need a few extra days before or after the SOAP meeting, at the special hotel rates arranged for SOAP. Visit the National Archives, where the Declaration of Independence, the U.S. Constitution, and Bill of Rights are all on display; see the New York Avenue Presbyterian Church, where a draft of the Emancipation Proclamation is on view; Capitol Hill offers visits to Congress, the Supreme Court, or the offices of elected representatives. Visits to the Monuments will recall the words of Jefferson, Washington, and Lincoln. Everyone should see the once-controversial Vietnam Veterans Memorial.

If architecture and churches fascinate you, the City offers Washington National Cathedral, a spectacular 14th century Gothic structure, sixth largest in the world; the Shrine of the Immaculate Conception, the largest Catholic Church in the western hemisphere; and St. John's Church, across Lafayette Park from the White House, called the church of the Presidents, since every President since Madison has attended there. Other, lesser known, churches and buildings of special interest are located throughout the city.

GALLOPING GOURMETS START HERE
Washington used to be known as a city with few interesting restaurants, but it has changed drastically! Countless ethnic eateries have opened in recent years, ranging from the simple and inexpensive, to the gourmet and exotic. Hotel dining rooms offer fine cuisine, either American or continental. Within easy walking distance, or short cab rides of the Mayflower Hotel, one can find food and service to suit even anesthesiologists' discriminating palates.

GETTING AROUND
The city transportation is quick and easy. Cabs are reliably known as the least expensive anywhere. They are plentiful and easy to find. Our new Metro delights visitors from other large cities. We have no graffiti (yet), and no litter; smoking, eating and drinking anesthesiologists are forbidden on trains and in stations! The fare card machines may confuse you, but help is close by! A few steps from the hotel is your nearest station, whence you will be whisked in minutes to the museums, the Capitol, the zoo, or even the suburbs. (Although you only wanted the airport!)

TOURS
Tuesday, May 7, 1985
Come to Washington early and enjoy a full day (12 hours) tour to Williamsburg, Virginia. Leave the hotel at 8:45 a.m., and return by 9:00 p.m. Round trip fare and admission to the historical area is $35.00 per person. If fewer than twenty people register for this tour, there will be adjustment in time and departure site.
Register for your tours no later than April 1, 1985. Registration will be on space available basis only.

Wednesday, May 8, 1985
City tour of Washington, D.C. Leave the hotel at 10:00 a.m. and visit the historical monuments: Jefferson Memorial, Washington Monument, Lincoln Monument, Vietnam Memorial, Arlington National Cemetery. Visit the grave sites of John F. and Robert F. Kennedy. Stop
**Washington, D.C., May 9-12, 1985**

**RAM**

**SATURDAY, 11 MAY**

**Morning:** Scientific Sessions, including a breakfast panel and the Annual Review of Obstetrics by M. Lynn Yonekura, M.D.

The Fred Hehre Memorial Lecture

**Afternoon:** FREE

**Evening:** A special evening is planned at the Kennedy Center. This black tie optional affair is not included in the registration fee. See registration form for fees.

**Program:** The National Symphony; Conductor: Rostropovich, Piano: Alicia Delarrocha. The $50.00 ticket will include an orchestra seat in the Kennedy Center’s Opera House, dinner before the performance, and bus transportation to and from the Center. Registration is limited to 200, so early registration is necessary.

**SUNDAY, 12 MAY**

**Morning:** Scientific Session, including a breakfast panel

Meeting adjourns at 1:00 pm

at the museum of your choice for lunch and a tour, meet the bus and return to the hotel by 4:00 p.m. Mount Vernon will probably be included in this tour. $8.00 per person.

**Thursday, May 9, 1985**

After you register, visit the National Cathedral, National Zoo, Embassy Row and stop at the mall to visit the Smithsonian museum of your choice. Leave the hotel at 10:00 a.m. and return by 4:00 p.m. $8.00 per person, twenty persons minimum for the tour.

**More Tour Information**

The pre-conference tours have been arranged for Tuesday and Wednesday for the enjoyment of families coming to Washington for the SOAP meeting. Tours can also be arranged on a daily basis in the hotel lobby for spouses and/or children. These can be made individually or for several members wishing to tour together. Tours of every description are available. These arrangements can be made in minutes through the front desk at the Mayflower Hotel.

For those who wish to explore on their own, the METRO is easy and very accessible. Trains run every few minutes to all interesting parts of the city and into some of the suburbs for specialty shopping. The Registration packet will contain information on the city, maps and tour information.

**WHETHER OR NOT?**

Weather in May is pleasant and calls for light clothing. Average temperatures vary between 65 and 75 degrees, with cool evenings.

**DRESS**

Dress attire in the city tends to be informal, but ties/jackets are required in most restaurants in the evening. Male anesthesiologists not wearing pants have been known to be ejected from some high class establishments. Although summer sometimes comes early, a light evening wrap is suggested. Walking shoes are a must.

For those attending the special Kennedy Center evening, black tie and evening dress is recommended.

**SO WHY NOT COME!**

Air transportation to Washington serves three airports. If you have a choice, National is most convenient, but ground transportation from Dulles International or Baltimore/Washington will put you downtown in about 45 minutes. From East coast cities why not travel by train? Union Station is just a few minutes from the Hotel. For those who wish to drive to Washington, there is parking available, for a fee, adjacent to the Hotel.

Washington, D.C. is your city. Attend SOAP May 9-12, 1985 and enjoy our sites, sounds and flavors.

**ABSTRACTS: SHOULD BE RECEIVED BY FEBRUARY 28**

As usual, papers read at the 1985 SOAP Meeting (May 9–12) will be of 10 minute duration. This time limit will be strictly observed by moderators. Discussion periods will follow each paper, or group of papers. The material submitted may include work in progress. SOAP is an informal organization for the exchange of information, and for discussion and constructive criticism of the studies presented. All abstracts (including those that are not accepted for presentation) will be printed in the abstract book just as they are submitted. They will not be published in any other form and are considered to be the property of the presenters, who may submit them to journals for formal publication at a later time.

Abstracts should be typed, single spaced with an elite element, on one page only of good quality white bond paper, 8½ x 11 inches in size. The left margin should be 1½ inches and all other margins not less than 1 inch. The type should be clear and dark enough to reproduce well. The abstract can be divided into the following sections: Introduction, Methods, Results, Conclusions and References. Any illustrations should be black and white prints made to size and carefully pasted in the position where you wish them to appear. Papers concerning research involving human subjects must include a statement to the effect that the project was approved by the appropriate human experimentation committee and that informed consent was obtained from the subjects.

Abstracts should include the title of the paper and the names of the investigators (with the name of the person who will present the paper asterisked) and the name of the institution. In addition to this complete copy (which will be included in the abstract book), 6 additional copies should be submitted with the names of authors and institutions deleted. These copies will be sent to the reviewers, to ensure impartiality of evaluation.

*All abstracts are mailed to:* John B. Craft, Jr., M.D.

Department of Anesthesiology
George Washington University Hospital
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Washington, DC 20037
Phone: (202) 676-3864

They should be mailed in time to be received by February 28, 1985. Abstracts received later than this date will not be considered for presentation. Notices of acceptance or rejection, and probable time of presentation, will be mailed in March.
The oscillating ‘vena cava syndrome’ during quiet pregnancy.

Schneider KTM, Bollinger A, Huch A and Huch R., University of Zurich, noted cyclic accelerations in maternal heart rate in two-thirds of term-pregnant women, when standing. They investigated 51 women, with uncomplicated pregnancies from 36-41 weeks gestation, in the left lateral, then upright position, using continuous ECG, blood pressure and cardiac output measurement. They also measured femoral vein blood flow velocity (Doppler) along with thigh plethysmography, in 12 subjects, and fetal heart variability in 23 heart rate, together with cyclical heart rate accelerations when standing. Concomitant with the tachycardia, femoral vein flow ceased or fell markedly. In 19 post-partum subjects, who acted as their own controls, no heart rate changes occurred. Eight of 23 fetuses showed decreased long term variability.

The authors conclude that administration of extra glucose to the asphyxiated fetus reduced tolerance of the fetal brain to asphyxia and may prove disadvantageous.

This complex study reveals another apparent fetal hazard of maternal glucose administration. While the authors deserve some congratulations for their industry, the experimental technique must give cause for concern. Each fetus was exposed to one episode of hypoxia, most to two, but several fetuses died during the last hypoxic step. Therefore, the reader must question whether an exteriorized sheep fetus, imperiled by hypoxia and perhaps moribund, represents a realistic ‘model’ (pace Felicity Reynolds) for the asphyxiated-in-utero human fetus. Nonetheless, the subject merits further study.


The Consumers’ attitude to obstetric care.

Morgan BM, Bulpitt CJ, Clifton P and Lewis PJ., investigated 1000 mothers by postpartum questionnaire, one year after delivery, to discern their attitudes towards current obstetric issues, including labor pain, monitoring, bonding and child care. Of 629 respondents, 45 percent agreed with the statement “Labor is an emotional experience, pain is a necessary part of it”. Mothers with higher obsessivity scores (Middlessex Hospital questionnaire) were more inclined to agree strongly. Overall, 50 percent of replies agreed “an epidural block (injection in the back) is the best sort of pain relief in labour” and there was a tendency (just statistically significant, (P < 0.05) for multiparous subjects to disagree. Sixty-three percent of all mothers found fetal monitoring reassuring, and only 16 percent felt home deliveries should be encouraged. Concerning mother-child bonding, 57 percent of respondents disagreed with the statement “pain suffered in labor joins the mother more deeply to the baby after it is born”, while only 19 percent agreed that “a mother’s feelings towards her baby are affected by how she felt in labor”.

In discussion, the authors comment on the ‘striking’ finding that mothers’ views were not in close agreement with the ‘natural childbirth’ school, or ‘established medical’ view. The ‘average’ mother in the survey wished to have some pain in labor, was uncertain of the superiority of epidural block, accepted fetal monitoring and was unconcerned labor would adversely influence her ‘bonding’ with the newborn. The authors conclude the attitudes of a large and representative group of mothers should carry more weight than the opinions of a frequently quoted vocal minority.

Questionnaires, like statistics, can prove almost anything. This study suffers from the thorny problems which plague questionnaires. How ‘loaded’ were the questions? How reliable were recollections one year later? If 63 percent of women responded, what were the views of the remaining 37 percent? If 45 percent of respondents agree labor pain is necessary, doesn’t this imply more than half disagree? (Apparently not, since the authors state 17 percent neither agreed nor disagreed - the silent minority?) Morgan and her colleagues have made good use of this questionnaire, which has already spawned three articles (How many papers can dance on the body of a questionnaire?) In contrast with the authors, I found it least striking that mothers agreed neither with the natural childbirth lobby nor the medical establishment - surely democracy in action, with most moms firmly rooted in the middle ground. The authors’ stunning conclusion that a survey of a representative group of mothers should carry more weight than the opinions of the vocal minority evoked touches of Lewis Carroll. Look for the next paper ‘non-attitudes to obstetric care - a survey of questionnaire non-responders’!

Of Cows and Cucumbers
An Occasional Book Review


When women struck their mightiest blow for feminism, and became born of women (instead of their old man’s rib), they inherited a problem, which remains a source of concern among primitive tribes - what to do with the umbilical cord. Eve’s cordless creation relieved Adam of this perinatal poser, but following The Fall, poor Eve became the first mother to wonder where she could put the afterbirth. After all, there was nowhere in the Garden to hide the bloody thing!

In Ever Since Eve, her personal reflections on childbirth, Nancy Caldwell Sorel tells how the Balinese touchingly place placenta and cord in a coconut, wrap them in sugar fiber, bury them at the threshold, and erect a small altar over the spot. (Certainly more hygienic than plunging them into polythene, and placing them strategically in the caseroom fridge, where they leak over the anesthesiologist’s sandwiches).

The Balinese custom is but one revelation in this anthology of childbirth which Sorel has lovingly compiled. Here, haughty and humble, blue-blooded royalty and anemic plebeians, moms and dads, write of the joys and sorrows of childbirth, that experience we all share in our own nativity play, and which almost half of us repeat again in the principal supporting role. Listen to Queen Victoria, a prim most experienced mother, chiding her 17 year old daughter, Vicki: “It is most odious.... that you and I are both in what I call an unhappy condition.” And later: “what you say of the pride of giving life to an immortal soul is very fine, dear; I think much more of our of the Fatherland, in pursuit of their Aryan cause.

The Chinese Medical Review, in 1852, propagated its inscrutable views on everything from sex in pregnancy to supine hypotension: “General rules: To check her passions, not to sleep on one side but on both in turn, to wear a belt 12 to 14 inches wide, sufficiently tied to support the hips without injuring the child”, and, again, this manifest wisdom: “not to pay too much attention to the advice of the mid-wife...the child grows and falls like a ripe cucumber in due season”. On aorta-caval compression The Review writes: “The accouchement may be rendered complicated by the weakness of the child, in that case the mother must lie in a horizontal position as being the most conducive to respose”. If she survives this induced cerebral hypoxia, and later in her pregnancy feels the child moving, the unwary parturient is once more exhorted to “lie upon her back and if the fetus descends, if the sufferings become intense,.... look at the radix of her middle finger. If you feel a beating of her pulse in that part, the moment of her deliverance is at hand.”

Advocates of the ‘conspiracy’ theory of take note what things have conspired between the sheets to foil the course of history. In the chapter on ‘feigning/fantasying’, we read of Mary Tudor’s pseudo-cyesis which, had it but been real, might have deprived generations of Englishmen of their rich ecclesiastical heritage, the Church of England! And under ‘politicizing’, we can shiver at the provisions of Nazi Germany’s 1938 Marriage Law, and the repulsive eugenics of the ‘Lebensborn’ homes, where loyal officers of the SS served the ladies the Church of England.

Many of Sorel’s most revealing vignettes tell of Fathers. Editor Piaf’s profligate father (who sired nineteen children he knew of), describes her arrival into the world “On a cop’s cape, under alamp post in front of #72 rue de Belleville”. Frederick Demuth made an equally inglorious entrance onto life’s stage at 23 Dean Street, London, in June 1851. Born of Helena, a young servant girl of whom her master took considerable advantage, Demuth became dispossessed by his father, himself the great advocate of the dispossessed - Karl Marx.

“A woman, like a book, is often found, far better in the sheets than bound!” (Anon.). Much may be found between the sheets of Ever Since Eve. However, it is not a book to devour from cover to cover; like childbirth, it should be tackled occasionally, if only for what it teaches us about man - and woman - kind.

Personal View

Abstracted from Personal View by Rosemary Macdonald.
British Medical Journal 1983; 287: 1544 with permission.

Every woman who has children feels qualified to comment on the management of childbirth. Sometimes it seems that our primigravid patients afford our parous patients the status of professionals, whereas the obstetricians are tolerated as informed amateurs. Advice from the domestic on the ward is to be heeded, that from the obstetric senior house officer disregarded.

Almost eight years as an obstetric anaesthetist, married to an obstetrician, and mother of 5 year old twins, make me feel uniquely qualified to comment on some of the “daft notions” surrounding childbirth today. These “daft notions” are perhaps best illustrated by examples culled from my experiences in our maternity unit.

YOGURT AND GRANOLA?

Sister was laughing as she asked me to have a chat to one of the patients who wished to have epidural analgesia for labour. The patient wished to know if she would still be able to eat her placenta despite epidural analgesia. I only just managed to compose my face, muttered to the registrar about total spinals and inability to chew, and quickly sited the epidural. The placenta was served, uncooked on a dinner plate, with a knife and fork, salt and pepper. It was “very tough,” she said, and she ate only a few mouthfuls. There was a query the next day as to why there was a knife and fork in a delivery pack.

Another couple wished to take the placenta home to bury it in the garden to ensure fertility. Since the mother was having twins I await her next booking with interest, or perhaps the roses in their garden are better now.

FAMILIAR STORY

The labour ward was busy, every delivery room was occupied. I did a solo round visiting each room. Some patients were coping well and not requiring analgesia. Two patients wished to have intramuscular pethidine. Two patients wished to have epidural analgesia. I entered a delivery room in the middle of the labour ward. The atmosphere was electric. The patient was in early labour and was very distressed. I started to explain about methods of analgesia. The prospective father stiffened. “We are having the baby by breathing exercises. We have been to classes. We do not need any of your epidurals,” he said in a most aggressive and rude manner. I counted to ten and quietly pointed out that his wife was having the baby and feeling the pain. Perhaps she could be allowed to decide. I suggested that as she was only in very early labour she might need some analgesia. I reminded her that we were always available.

Eventually she had her natural pethidine, followed by a natural epidural, and ultimately a caesarean section for incoordinate uterine action. I did not gloat but felt sorry that this young couple had marred their own experience by being bigoted and aggressive. Had they...
Continued from page 9

been prepared to bow to the advice of those with more experience of the business of labour and childbirth then I am sure we could have given them a more enjoyable and emotionally satisfying labour and delivery. Instead, on the postnatal round we find an exhausted, guilt-ridden mum who thinks that she has failed because she could not cope with labour.

I recently attended an all day meeting organised by the National Childbirth Trust. Michel Odent was a guest speaker and brought along his slides, which illustrated childbirth at Pithiviers. I know I speak on behalf of many women who would find the techniques used at Pithiviers unacceptable. We would wish childbirth to be a private experience, and find continual references to the biosexual aspects of childbirth distasteful and inappropriate.

Nevertheless, there is obvious dissatisfaction among mums and dads with some aspects of modern obstetric practices and there is always a grain of truth in every criticism, however emotionally or aggressively made. Some delivery suites do need to be reorganised so that the atmosphere is less clinical. Probably not every woman in labour requires to be managed with high technology, but the technology does have to be there should mum or babe require it at a moment’s notice.

HEAR! HEAR!

Obstetricians are caring people, and obstetrics is the only specialty that continually conducts an audit of its clinical performance. Obstetric anaesthetists are dedicated to their specialty because they wish to make childbirth less painful (it is painful sometimes) and safer for mums.

Therefore can we not try to defuse all the emotion surrounding the actual birth? Having a child is a continuing commitment. And much of the emotional satisfaction of having children surely stems from seeing them grow up.

Childbirth with dignity and safety
Healthy mums and healthy babies

These are the mottos I should like to see on the door of every maternity unit.

MISSOURI Washington University School of Medicine, Department of Anesthesiology, is seeking board certified or eligible anesthesiologists for obstetric anesthesia position that entails clinical care, teaching, and research. Equal opportunity employer. Women and minority group members are encouraged to apply. Write William D. Owens, M.D., Department of Anesthesiology, Washington University School of Medicine, 660 S. Euclid Avenue, St. Louis, Missouri 63110. 2/84

WISCONSIN The Medical College of Wisconsin is seeking Postgraduate Year 4 Anesthesia Residents to participate in newly developed fellowships in Obstetric Anesthesia beginning in July, 1984. Full-range program is based in two community hospitals with 6,000 deliveries/year and offers opportunities to gain clinical experience in all forms of obstetric anesthesia in high and low risk patients. Excellent opportunities for clinical or laboratory research as well as medical teaching. It is also possible to design a Fellowship Year to include experience in another area of specialization such as Pain Clinic, Intensive Care, or Cardiac Anesthesia. Candidates are invited to direct inquiries to: Susan K. Palmer, M.D., Director of Obstetric Intensive Care, or Cardiac Anesthesia. Candidates are invited to direct inquiries to: Susan K. Palmer, M.D., Director of Obstetric Intensive Care, or Cardiac Anesthesia.

Solicitations ...
From the Journal of Irreproducible Results
A Short Guide To Doctors

by John J. Secondi, M.D.

Medicine, like every other field these days, is so overspecialized that even a card-carrying doctor like me has trouble telling who's who. The layman, I imagine, is almost helpless to distinguish the forest from the tree surgeons. I have noticed, however, that my colleagues have a tendency to run to type. So, in an effort to clear up the confusion, I have compiled a little list so simple the most naive patient can spot at a glance which doctor is which.

THE INTERNIST
This is a general practitioner with more diplomas on the walls and without house calls. (He also has money in the bank.) By the age of thirty at the latest he becomes obese, sallow, and emphysematous. Usually bald, he is always found sitting and smoking a pipe. (The pipe is a deliberate attempt to evoke the Delphic Oracle, which also simmered and steamed with ideas. The internist is nothing if not oracular.) As opposed to the surgeon, who carries no equipment at all except keys to his Rolls-Royce, the internist can be seen with a stethoscope protruding from one of thousands of pockets in his clothing. Really big stethoscopes are worn to give the impression of expertise in heart disease.

In his desk the internist stocks lifetime supplies of sample drugs; when you are in his office he may nick off two or three and give them to you with alarming liberality. But don't worry; he won't tell you what they are. The internist is really happy only when deciding how to cope with some chronic incurable disease, preferably in a case some colleague has botched. The longer the name of the disease, the happier he is; and if it's in Latin he's ecstatic. An internist, the happy side of life. They have to have a good sense of humor because otherwise they would be so upset by some of the things that come out.
Meetings
We’ve Heard About

February 9-16, 1985. 13th Obstetric Anesthesia Conference, Sheraton Waikiki Hotel, Waikiki, Hawaii. Sponsored by: Department of Anesthesiology, The Ohio State University Hospitals. Category I Credit = 20 hours. Contact Arlene Rogers, The Ohio State University Hospital, Department of Anesthesiology, 410 West 10th Avenue, Columbus, Ohio 43210. Phone (614) 421-8487.


March 23-30, 1985. 12th Neonatal and Infant Care Symposium, Kiandra Lodge, Vail, Colorado. Sponsored by: Department of Anesthesiology, The Ohio State University Hospitals. Category I Credit = 20 hours. Contact Arlene Rogers, The Ohio State University Hospital, Department of Anesthesiology, 410 West 10th Avenue, Columbus, Ohio 43210. Phone (614) 421-8487.


The SOAP Newsletter is published quarterly in Halifax, Nova Scotia, by the Society for Obstetric Anesthesia and Perinatology. Unless otherwise indicated, opinions expressed are those of the Editor and do not necessarily represent the consensus of the Society. Address correspondence to the Editor, Chief of Anaesthesia, Grace Maternity Hospital, 5821 University Avenue, Halifax, Nova Scotia, Canada B3H 1W3.
The Fred Hehre Lecture

SOL SHNIDER, Vice-Chairman, Department of Anesthesiology; Professor of Anesthesiology, Obstetrics, Gynecology and Reproductive Sciences, University of California, San Francisco, tells how he succumbed to peer pressure.

“ALEX, BE KIND”

Alex Pue, SOAP’s official photographer, always takes candid pictures, usually in the most unattractive positions. Alex be kind.

I knew Fred Hehre. He was a Professor at Columbia in the early 50’s and, as a matter of fact, walked out the door when I walked in. Fred went up to New Haven and I started my Residency. He was a very sweet man, a lovely man, and we would meet at parties and reunions. We always zoomed in on Virginia Apgar. Virginia was an inspiration for Obstetric Anesthesia at Columbia at the time, and I remember many reunions where she would sit at a table, with Fred and I on either side, listening to her talk about her world travels and work.

It is a great honor to be asked to give this lecture, and I thought today I would review some of the research we have done over the years, focus on why we did it, and emphasize how important the Fellows were in the genesis of the research, its inspiration, and, of course, its execution.

My first slide shows me singing at a party at Columbia Presbyterian in 1962, when Fred was in the audience. At Columbia, before going to San Francisco, I completed studies with meperidine and its effects in the newborn, a clinical study of the effectiveness of cyclopropane analgesia for labor and work on the hazards of maternal hyperventilation. Looking back, these studies provided a theme for the work we began and have continued, in San Francisco. They deal with obstetrical anesthesia, its various techniques, their effectiveness, their safety and what happens if we don’t use it.

How safe is OB anesthesia? The main thrust over the years has been the safety of obstetrical anesthesia and adjuvant drugs. When we consider safety, we are interested in mother, fetus and the newborn. Our interest in the mother reached a tremendous peak in the 80’s looking at the toxicity, and potential toxicity, of local anesthetics. For the fetus, one needs to look at the effects of drugs, techniques, and adjuvants on uteroplacental perfusion, and the consequences of impaired perfusion on fetal oxygenation, fetal heart rate, and acid-base status. Currently we are looking at the effects of anesthetics on fetal cerebral oxygen consumption. As well, we’re interested in the neonate, his clinical condition at birth, 15 minutes after birth, in neurobehavioral studies a day or two later, and finally in long term follow up.

It was apparent at the beginning, in the 60’s, that one needed an appropriate animal model to look at effects of drugs on the fetus, and, in particular, uteroplacental perfusion. The sheep has been a wonderful help in delineating all kinds of problems. I did get carried away at one point; this slide shows my apartment in the 70’s….they’re stuffed….I didn’t bring them home from the vivarium - Judy wouldn’t let me do that.

In the beginning, my first Fellow was John Hall. In those years there were two problems we believed needed answering, which had to do with medo that. It was apparent at the beginning, in the 60’s, that one needed an appropriate animal model to look at effects of drugs on the fetus, and, in particular, uteroplacental perfusion. The sheep has been a wonderful help in delineating all kinds of problems. I did get carried away at one point; this slide shows my apartment in the 70’s….they’re stuffed….I didn’t bring them home from the vivarium - Judy wouldn’t let me do that.

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During the course of several conversations with members at the recent Annual meeting in Washington, D.C., it became apparent to me that there is a general lack of knowledge of the Articles of organization of our Society. The Articles of organization were formulated and accepted during the early days of the Society and, to my knowledge, have not been publicized since then. I am, therefore, including in this column the Articles of organization and bylaws for this Society, so that all may be aware of the rules under which we function.

Articles of Organization and Revised By-Laws of the Society for Obstetric Anesthesia and Perinatology

PREAMBLE
This Organization shall be known as the Society for Obstetric Anesthesia and Perinatology. It is organized for an indefinite period, hoped to be perpetual.

This Society shall not seek corporate status nor legal identity. Therefore, responsibility and liability for the actions of the officers may not be legally attached to other active members of the Society.

The purpose of the Organization is to provide a forum for discussion of problems unique to the peripartum period. This includes clinical practice of medicine, basic research, practical business and public health aspects of this important phase of life.

This Society is dedicated to informality, but to effective facilitation of the unrestricted and spontaneous interchange of new ideas in this field. It further seeks to disseminate pertinent new ideas in this field.
As the heady days and warm Spring nights of SOAP, 1985, recede into the memory, SOAP's 1986 co-hosts, Bob Hall and Richard Clark prepare Salt Lake City for our arrival. John Craft, Alice Allstat, Martha Morales, and a host of unseen helpers deserve our thanks for the excellence of the Washington meeting. The city's diplomatic boulevards, stately Mall, and historic museums offered delights for SOAPers' families, and those who couldn't afford babysitters happily brought the kids along. SOAP's family album of the event, faithfully recorded by Alex Pue, our unofficial, always dependable photographer, even records that some avant garde mères carried fetuses in-utero to learn about the benefits of regional analgesia. Catching 'em young!

Intense academic days, when we learned, for example, how macaca mulatta averages 500 min in a meperidine-treated labor (n=4), compared with 290 min after no analgesia (n=3), contrasted with fêté social evenings at the symphony and the banquet, where SOAPers tasted fine wine and the delights of biting political satire a few indiscreet blocks from Watergate.

To enliven your holiday season, this issue of the Newsletter recaptures some of the flavor of Washington, and highlights of the meeting. The Editor's fears that Alex Pue's photos would be distorted by the 300' x 27' dimensions of the State/East room proved groundless; however, all SOAPers can walk tall for having visited Washington!

Over to you, Bob and Dick; we look forward to Springtime, Salt Lake and the informal delights of SOAP, 1986. The annual meeting is always fun - what a great bunch we are!

PS. The Editor offers sincere thanks (and apologies where due) to all who thought:
(a) he was dead, and bothered to enquire
(b) SOAP had dissolved in the warm waters of the Maritimes
(c) the Newsletter was no more!

Continued from page 1

to other medical and lay groups and to stimulate improved practices in all aspects of this field.

MEMBERSHIP
Any physician or scientist (as determined by the Board of Directors) particularly interested in the problems of the perinatal period may become a member of the Organization. Prospective members may be enrolled upon application to the Secretary of the Society/Editor of the Newsletter. They shall become official members of the Society immediately after the adjournment of the first regular meeting of the Society which they personally attend.

There shall be only one class of members: active membership. The Society shall not establish other qualifying requirements for membership without a two-thirds majority vote of active members present and voting. Active membership shall be terminated if the member misses two consecutive annual meetings without the approval of the Board of Directors. Active membership will be reinstated at the adjournment of the first subsequent annual meeting which the member attends.

EXPULSION OF THE MEMBERS
Active members may be expelled upon completion of the following procedure: Upon written complaint signed by one-fifth of the active members, an expulsion hearing must be called by the Board of Directors. After two months' notice to the members so designated, the Board of Directors will schedule and hold a hearing and will hear the arguments and defense. If the Board so rules, a second hearing may then be held at the next subsequent annual meeting. After at least two months' notice previous to the annual meeting, a second hearing will be held during the business meeting of the annual meeting. At the second hearing, a two-thirds majority vote of all active members present and voting will be sufficient to expel a member.

DUES
From time to time, the Treasurer shall levy dues on the active membership to cover the current expenses of the Society, with the approval of the Board of Directors. Ordinarily, legitimate expenses would involve those necessary for the organization of the annual meeting, reasonable expenses for the preparation of the Newsletter, and pertinent office expenses of the officers. Assessments for other enterprises may from time to time be voted by a simple majority of the active membership at the annual meeting.

OFFICERS
Officers of the society shall consist of the President, who shall be the immediate past host of the annual meeting; the Treasurer, who shall be the host of the next annual meeting; and the Vice President, who shall be the host of the next subsequent annual meeting. Other officers will be the Board of Directors. Members of the Board of Directors include the President; the Treasurer; the Vice President; the current Chairman of the Committee on Obstetrical Anesthesia of the American Society of Anesthesiologists; an Obstetrician, who is a member of the American College of Obstetricians and Gynecologists; a Neonatologist; the Secretary, who is Editor of the Newsletter; and a Director-at-Large, elected from the active membership by the active members.

The Obstetrician and Neonatologist on the Board of Directors will be elected to a two-year-term in odd-numbered years. The Director-at-Large on the Board of Directors will be elected to a two-year-term in even-numbered years.

DUTIES
The President shall open and close the annual meetings of the Society. He shall chair the business meetings of the Society and such meetings of the Board of Directors as shall be necessary. He shall sign the Secretary/Editor and chairmen of ad hoc and standing committees. He may appoint such committees as he deems necessary to conduct the business of the Society.

The Treasurer is the host of the annual meeting. He shall arrange the annual meeting and shall consult with the Board of Directors regarding the program of the annual meeting and its format. He shall, after considering the advice of the Board, have final authority and responsibility for the program and arrangements of the annual meeting. He shall, with the consent of the Board of Directors, levy the annual dues which shall be collected as a registration fee at the annual meeting. He may make disbursements of these collections as necessary. He may only obligate the Society for debts to the extent authorized by the Board of Directors.

BOARD OF DIRECTORS
The Board of Directors shall act with the host of the annual meeting in planning the annual meetings. All actions of the Board are binding only until the next annual meeting and must be formally ratified or rejected by simple majority vote of the active members present and voting. The Board shall establish limits of authorization for indebtedness upon the Treasurer. It shall hold first hearings on expulsion proceedings against members. It may substitute hosts for the annual meetings, should unforeseen circumstances arise.

THE ANNUAL MEETING
The annual meeting site and its host shall be chosen by simple majority vote of members present and voting at a previous annual meeting. It shall be chosen approximately two years in advance from a list of alternative sites and hosts submitted by the Board of Directors.

Regular business, including a report of the actions of the Board of Directors, and elections of the Society will be conducted at the annual meeting except as herein described. Notice of the time and place of the annual meeting shall be published in the Newsletter and distributed to the members by the Editor of the Newsletter.

AMENDMENTS
Amendments to the Articles of Organization of the Society may be proposed by any active member to the Board of Directors by mail. A simple majority vote of the Board of Directors may propose an amendment at the annual meeting. If passed by simple majority of active members present and voting at the annual meeting, the amendment will become effective at the end of that meeting.

1Amendment - 1974
2Amendment - 1974 and 1972
3Amendment - 1972
4Revision - 1978
with safety: the use of vasopressors, and paracervical block. We were using many paracervical blocks at UCSF and, when we looked at almost 900 patients, we found fetal bradycardia in 24 percent of cases following paracervical block. We also looked at clinical condition of neonates born after paracervical block. We postulated that local anesthetic in the paracervical region could diffuse across the uterine artery, into the intervillous space at a higher concentration than in blood supplying the uterus. In fact, we demonstrated a transarterial diffusion of local anesthetics. Another possibility with paracervical block is development of fetal acidosis, following bradycardia and hypoxia. This often results in ion-trapping of the amides. With Diane Biel, in an unrelated study, we produced fetal acidemia with a continuous maternal infusion of lidocaine in the acidic fetus. The other obvious explanation for fetal bradycardia is decreased uterine blood flow, the local anesthetic diffusing to the uterus vessels causing vasocostriction. Morishima showed that, however, and Heilmann in Scandinavia has been unable to document decreased uterine blood flow in human mothers whose babies develop post-paracervical block bradycardia.

Vasopressors and uterine blood flow. Vasopressors were a very interesting problem. In the late 50's and early 60's, we used a considerable amount of vasopressor with spinal anesthesia for cesarean section. We didn't hydrate, use a lot of fluids, or routinely tilt the woman. We used uterine displacement if blood pressure fell. And we gave large doses of vasopressors. Initially we gave ephedrine and, if that didn't work, methoxamine. Mothers then developed postpartum hypertension.

Greiss reported a fall of uterine blood flow in pregnant sheep, with spinal anesthesia and hypotension. After phencyclidine, a pure alpha-adrenergic agonist, there was initially an increase in uterine blood flow, in human mothers whose babies develop post-spinal hypotension. In control animals with hypotension there was a deterioration of fetal pH, and this improved in the study group, following ephedrine. We also looked at metaraminol using the antipyrine technique for measurement of uterine blood flow. With spinal hypotension there was a significant fall in uterine blood flow and with metaraminol infusion an improvement to control. There was no significant change in uterine blood flow with hypertension or with metaraminol. With Ralston we looked at prophylactic paracervical block. We postulated that local anesthetic in the paracervical region could diffuse across the uterine artery, into the intervillous space at a higher concentration than in blood supplying the uterus. In fact, we demonstrated a transarterial diffusion of local anesthetics.

Dopamine, ephedrine, cocaine! The vasopressors have occupied our attention over the years and, with Keith Callender, we looked at dopamine; with Wright, the effects of ephedrine on fetal heart rate; and with Hughes, the placental transfer of ephedrine, and, then more recently, the effects of cocaine. Dopamine seems to act very much like the pure alpha-agonists. Clark looked at this, comparing ephedrine at birth, using an additional fluid, with fetal acidemia with ephedrine treated with ephedrine 15 mg IV, and 35 mg IM. One hour later the fetal heart rate had a salutory rhythm but fetal pH is normal. In the 6 women whose fetuses had the fastest tachycardias, scalp pH measurements were all normal. This tachycardia occurs shortly after theophylline administration, lasts surprisingly long (for hours in the fetus), and shows a dose-response relationship. Later we studied placental transfer of ephedrine, and, God willing, with Sam Hughes will some day publish this paper! It shows maternal arterial ephedrine levels, and umbilical venous levels which are virtually the same as in the mother. Ephedrine was given during cesarean section, and blood was taken from mother and fetus, and fetal at birth, for ephedrine levels.

Cocaine! Stan Foutz suggested we study this, and it was an interesting study. Obviously... (I shouldn't say obviously - if you don't work with sheep, you don't realize their noses are not conducive to application of cocaine!). We administered cocaine in three doses: 0.7 mg/kg, 1.4 mg/kg, and 2.1 mg/kg. We were searching for a dose with no detrimental effect on fetal blood levels. We took blood in humans after cocaine spray of the nose for nasotracheal intubation. We found with the blood levels corresponding to the low dose, and infusion of cocaine over 30 seconds, no significant change in uterine blood flow. A Los Angeles group also looked at cocaine and found significantly decreased uterine blood flow, with doses approximating to 1 mg/kg. So, cocaine can certainly be detrimental; it depends on the dose.

Is obstetric anesthesia safe? There are two areas - really important areas - that we looked at. What could be more important than the safety of epidural anesthesia, and the safety of general anesthesia? We all know if there is a complication, for example hypotension, a difficult intubation with consequent asphyxia, or a convolution, these techniques are not safe. But what happens in a well managed, well controlled epidural anesthetic? Some authors have suggested that, even when maternal blood pressure remains unchanged, a pharmacologic sympathectomy redistributes blood flow and cardiac output, and uterine blood flow then falls even though perfusion pressure is unaltered. We studied this in sheep. When the blood pressure was maintained there was no change in directly measured uterine blood flow. This was a time when local anesthetics were shown to produce uterine vasoconstriction in very high blood levels, and with Diane Biel we wanted to know what would happen when local anesthetic levels were in the clinical range. We therefore infused lidocaine for 2 1/2 hours to produce levels of 2-4 micrograms/ml and found no detrimental effect on uterine blood flow. It remained at control level, as did maternal blood pressure, pulse rate and cardiac output.

As far as general anesthesia is concerned, our first studies on safety were with halothane vs. isoflurane. With light anesthesia (1 MAC, and 1.5 MAC) uterine blood flow is well maintained. Only with very deep anesthesia, where the maternal blood pressure falls to 40% and cardiac output is reduced, does fetal acidosis and hypoxia occur. Halothane, and isoflurane, vasodilate and increase utero-vascular conductance, but, despite a fall in blood pressure of 10 to 20%, uterine blood flow is maintained. When one looks at the addition of halothane 0.5 percent to nitrous oxide, one sees an increase in uterine blood flow. Nitrous oxide causes a small but significant decrease in uterine blood flow, consistent with its known sympathomimetic effects, and the increased plasma catecholamines that occur with surgical stimulation during nitrous oxide anesthesia. With halothane however (0.5 percent), there is a slight (20 percent) increase in utero-placental perfusion. No significant difference occurs with enflurane.

The safety of epidural morphine. When epidural morphine became available, we decided to look at it in the ewe. We injected 20 mg. into the ewe's epidural space and found no change of uterine blood flow over 2 hours, and no change in fetal heart rate or mean arterial pressure. Similar experiments have been undertaken by John Craft, using fentanyl and sufentanil, and there are no adverse effects on utero-placental perfusion.

Studies reveal brain damage? Who can forget January 14, 1979? Maybe some of you in this room weren't involved with obstetrical anesthesia, but these headlines raged from all kinds of newspapers. Here is the Boston Globe: "Brain Damage Tied to Childbirth Drugs", and here the Chicago Tribune: "Drugs in Childbirth Cause Brain Damage in Babies", study says. They interviewed Yvonne Brackbill on 20/20 and this was the dialogue: "Does the impact of these drugs with the baby?" "No. They don't." "Does this mean, in a sense, by giving the mother an anesthetic, we may be compromising the IQ of the child?" "Yes." "How great a degree — between 2 and 7 IQ points?" "On the average, about 4." This caused a huge furor and tremendous interest, of course, and there was a national inquiry. There were meetings in Washington, at the NIH, and the NIH statisticians were brought in to look at the data. When the data was continued on page 4
confounding variables were considered in this group of women. The statistics were invalid, in that there were no controls, and not all been examined at 4 years of age after mothers received a variety of systemic medications and anesthetics for delivery. There were about 2,700 women who received either no analgesics, alphaprodine (Nisentil), meperidine, or a combination of drugs. When we looked at the anesthetic but not the mother with the bubble (and fathers absolutely nothing, and others who had spinal anesthesia, epidural block, nitrous oxide, pudendal or paracervical block, or more than one type. Therefore, there were a group of women who had a variety of anesthetics, and whose babies were examined at 4 years of age, looking at development. With the appropriate statistics, one could take into account non-drug variables, for example: parental education, ethnic group, gravidity, the sex of the child, and whether or not there were any complications during delivery. Looking at the Peabody and Raven tests, (two tests of cognitive ability, standardized for race or sex to a mean of 50), we found no effect of anesthetics. In fact, it looked as if the spinal group were better than the control mothers, and even those who had local or paracervical block. Never did we say that anesthesia was unimportant for the IQ of the children; we were only able to show there was no change at least in this particular group of babies. Also, with medication, we found no effect. There was a subsequent study in Oxford which tended to corroborate our findings: they studied pain relief during childbirth, and neonatal development at 4 years, in 570 infants. A general anesthesia group, epidural mothers, and mothers having meperidine or no analgesia, analyzed. Their babies were tested by gross motor, fine motor, visual tests, language and comprehension, and no significant difference was found in the development status of the children, at age 4 years, with respect to the method of pain relief. You can imagine it’s enormously expensive to set up a study like this, and I don’t know whether similar studies are now being undertaken prospectively, but at least on the basis of these two reports, it appears that giving mothers an anesthetic or medication during delivery has no significant long-term effects on the cognitive ability, or IQ, of their neonate.

Toxicity of local anesthetics. The last area of safety that we have been involved in most recently has to do with neurotoxicity of chloroprocaine, and cardiotoxicity of bupivacaine. There was an enormous amount of effort, and an enormous contribution by various Fellows in the 80’s. Mike Norton was one Fellow who worked on the neurotoxicity of sheep; mostly on the injection of procaine, and tried to find out the IQ of the offspring. Procaine is a very strange molecule - very important! They say, and I agree, that one picture speaks 1,000 words. This slide shows an animal which received 2.1 mg/kg. of bupivacaine. A few seconds after completion of the injection, the QRS complex widens and a very bizarre EKG pattern occurs, even before development of the local anesthetic convolution.

Epidural and intrathecal narcotics. Epidural morphine is, of course, an area we have looked at. I remember I was on my way out the door and I look at my note, and in 79, when Sam Hughes called me. He was very excited: “Have you seen this week’s Lancet?” (He had a friend who worked for British Airways, so he got the Lancet very quickly!) In that week’s edition was Behar’s article on epidural morphine, 2 mg, for the treatment of cancer pain and severe back pain. We immediately became interested in this subject and over the years we’ve done several studies. In the Hughes study, with 7.5 mg. of epidural morphine, there was a 40-50 percent improvement in pain. With bupivacaine, 0.5%, of course, you get 90 percent relief, which doesn’t last that long and needs to be topped up. With Patsy (Dailey) and Theresa (Abboud) down at USC, we looked at 0.5 and 1 mg. of morphine intrathectally. Intrathecal morphine does approach local anesthetics, as far as pain relief is concerned.

Ewes too! Who could forget the Birth-ezz? We used to go to the ASA Meetings, and the IARS Meetings, and find a very beautiful woman in leotards lying on a table, and Dr. Emerson with this ‘bubble’ the Birth-ezz on her tummy. This was even before we knew the word ‘sexist!’ The girl would lie there, and they would put this ‘bubble’ on her. She would then press a little button, and a vacuum would be created to suck up the abdominal wall. Mothers did that when they had a contraction, and it was supposed to relieve the pain in the first stage of labor. The first thing we did was to investigate it in our pregnant ewe preparation.

There was a story of a physician who went to China, had his appendix removed under acupuncture, then wrote about the wonder acupuncture. It turned out he had given the patient a spinal anesthetic, and he had been given acupuncture for postoperative gas pains! But he was very impressed with acupuncture, and we started to see films of women undergoing cesarean section with acupuncture, and eating oranges! Do you remember? The doctors were passing tangerines to these women, who were lying there smiling, and they were twirling needles and fiddling with the box.

We found the points on a woman which would be appropriate (and had been used in China) for dysmenorrhea. The Chinese, as you know, don’t use analgesics for labor, and they had not used acupuncture for the pain of labor. So we were really moving in uncharted waters. You also remember that acupuncture works, because it works on animals. If it works in animals it cannot be a psychological phenomenon, or a political phenomenon. It works in animals! So we visited an acupuncture parlor in Chinatown, San Francisco. There was a Dr. Pyen, who said he had used acupuncture in animals, and we invited him to U.C. to try it on our smiling sheep! Oh, we had a big crowd that day in the lab! And the sheep was in the cage, minding her own business, and smiling and happy. Then Dr. Pyen put the needles in and turned up the current. I have never seen a sheep move so fast! That sheep was out of that cage, it was an incredible experience. Dr. Pyen still has a very successful practice in Chinatown, and we no longer use acupuncture. But we did a clinical study too of course. We had 21 patients who really wanted acupuncture for labor and met with Dr. Wu, a Chinese physician who did the diagnosis by looking under the tongue and feeling the radial pulse, then demonstrating the technique. The objective was tremendous motivation of these women to have labor with acupuncture, and have pain relief, but it just didn’t seem to work.

How safe is no anesthesia? What happens if you don’t use obstetric anesthesia? This is an area which has really been fascinating to us, having to do with maternal stress. We noted, in the sheep lying quietly on the table, if the phone rings, or someone comes in to the room, or she gets agitated, a decrease in uterine blood flow with a hypertensive response. We therefore tried to devise a study where we could stress the fetus. We used an electrical stimulus, and measured catecholamines at various points in the stimulation. We saw an increase in blood pressure, a decrease in perfusion, and an increase in circulating catecholamines. Unfortunately, in those days, we didn’t have an assay for epinephrine, just for norepinephrine. However, stress and pain is certainly not beneficial to the fetus. We also studied the changes in circulating catecholamines following epidural anesthesia, and found a 55 percent reduction in catecholamines. Another way of saying this, you know, our abstract as an example (in the call for papers). It gives me a lot of pleasure and is a great honor. Jouppila and Hollmen’s data showed with epidural anesthesia, (10 ml. of 0.25 percent bupivacaine), in toxemics a dramatic, 80 percent, improvement in uteroplacental perfusion. In a well-managed epidural, once you remove the pain of labor, you should improve fetal well-being, because you certainly have improved uteroplacental perfusion.

I think, to sum up, my favorite studies over the years have been these: The safety and fetal benefits of obstetrical anesthesia; The evaluation of spinal narcotics in obstetrics for postoperative pain; The proof of bupivacaine cardiotoxicity; and, now, Successful resuscitation after bupivacaine cardiotoxicity. I think it is obvious in this talk - the fellows made me do it. They were certainly very instrumental in suggesting and executing these studies. I asked them to send me photographs and they came in all shapes and sizes; it just became a little unwieldy. For those of you in the back of the room, this is the Vietnam Memorial, this is the San Francisco survivors. At the beginning it was one fellow a year, and then, in the 80’s, many Fellows. Nature abhors a vacuum, and if you become a Fellow there’s always a little unwieldy. For those of you in the back of the room, this is the Vietnam Memorial, this is the San Francisco survivors. At the beginning it was one fellow a year, and then, in the 80’s, many Fellows. Nature abhors a vacuum, and if you become a Fellow there’s always a study to do, always some mystery to unravel. There have been groups that have given me particular pleasure. The Canadians especially. I am a Canadian (was a Canadian), and one of the pleasures is that each of these Canadian Fellows has gone back, at least for a while, into academic medicine. Palahnuik is now the Chairman, of course, in Vancouver. Diane Biehl is also there; Wright went to Davis, Steve Roblin’s now in Toronto. Kotelko went back to Saskatoon. Halpern is now in Toronto and Saul Pytkas is in Halifax. Saul Pytkas has a very interesting story. When he was in San Francisco, his wife became pregnant for their third baby, and she had a sonogram which was diagnosed as another boy. This was quite disappointing because they...
have two boys. However, at the cesarean section in May, a little girl
was delivered, which of course constitutes the earliest sex change!

The army has sent a number of fellows. Gary Ring joined me and we
studied infusions of phenylephrine at that time, to produce hypertension
and look at the benefits of hydralazine vs. nitroprusside. Of course, the
Navy has been wonderful. I had to name my favorites, I have to name my 'children' at U.C., and Gird (Levinson) back in 70, Sam (Hughes), Mark (Rosen) and Patsy (Dailey) have been fantastic.
They have been indispensable to our work, and I thank them very, very much. The most 'significant others' are Marilyn, who came to
work for us more than 20 years ago, Judy, (1968) and Anita, '76. Judy, as
you know, is responsible for the sheep lab, Marilyn for the assays of
local anesthetics (and many, many other things) and Anita keeps me in
line.

I thank you very much for your attention and the honor of being this
year's Fred Hehre lecturer.

(EDITOR'S NOTE) Limitations of space prevent us from using Sol's
slides. SOAP members should use their vivid imaginations!

What's New in Obstetrics
by Margaret Lynn Yonekura
Assistant Professor of Obstetrics and Gynecology, University of Southern
California Medical Center, Los Angeles, CA

What's new in obstetrics - 1984?
The answer to this question depends on your vantage point: obstetri-
cal anesthesiologists and neonatologists will clearly say "not enough!"
whereas the speaker who had to try to condense it all into a half-hour
will answer "too much!"

In preparing this presentation, I attempted to select topics of
interest to all three subspecialties represented in this society, and I
have concentrated on clinical rather than animal or laboratory
research. I would like to apologize ahead of time to those of you I
may offend by not quoting your most recent publication. However,
being from USC and running a delivery service that strongly
resembles a rookery, I have certain in-bred biases that are difficult
to escape: if the paper is not clinical, it's not relevant, and if we didn't
write it, it may not be true!

During the past 15 years, the U.S. infant mortality rate has declined
rapidly compared with relatively little change in the birth-weight
distribution. Improved infant survival has been attributed principally
to reduced BW-specific mortality resulting from advances in perina-
tal medicine. Kessel' demonstrated that between 1970 and 1980,
there was a 14 percent reduction in LBW (< 2500g) infants. (Figure
1) However, when gestational age is also considered, there has been
a threefold greater reduction in term LBW, compared with preterm
LBW. More than 3/4 of the decline in LBW mortality is thus attributa-
ble to the reduced mortality of term LBW (or growth retarded)
infants. Why is this? The decade of the 1970's was a time of rapid
growth in the number and scope of federal, state and local health
programs emphasizing maternal and child health. Educational pro-
grams aimed at reducing smoking, promoting good nutrition—with
more liberal weight gain recommendations—and encouraging early
antenatal care, appear to have been more effective in yielding heavier
infants than in preventing preterm births. Moreover, widespread
availability of family planning services, and legalized abortion, prob-
ably resulted in fewer unwanted and, perhaps, high-risk,
pregnancies.

FIGURE 1
CHANGING PATTERN OF LOW BIRTH WEIGHT
IN THE UNITED STATES: 1970-1980

<table>
<thead>
<tr>
<th>RATE/100 LB</th>
<th>1970</th>
<th>1980</th>
<th>% REDUCTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>LBW</td>
<td>7.31</td>
<td>6.29</td>
<td>14.0</td>
</tr>
<tr>
<td>TERM LBW</td>
<td>3.49</td>
<td>2.76</td>
<td>20.9</td>
</tr>
<tr>
<td>PRETERM LBW</td>
<td>3.81</td>
<td>3.54</td>
<td>7.1</td>
</tr>
</tbody>
</table>

IUGR

Growth retarded infants, together with prematures infants, account
for the majority of our current PNM. Intrauterine growth retardation
was the subject of excellent reviews in 1984. Briefly, this problem
complicates 3-10 percent of all pregnancies (Figure 2). PNM is 4-8
times higher for the growth retarded fetus and serious short- or
long-term morbidity is noted in half the affected surviving infants.
This associated morbidity includes intrapartum fetal distress, neonatal
hypoglycemia, hypocalcemia, polycythemia and meconium aspira-
tion syndrome. Overall, 9-27 percent of growth retarded infants
also have anatomic or genetic abnormalities. Two thirds of growth
retarded infants are symmetric, 1/3 asymmetric. The prognosis for
infants with symmetric IUGR depends on the related cause, be it
constitutional, genetic, infectious, toxic, etc. Asymmetric IUGR
results from uteroplacental insufficiency. While the long term prog-
nosis for an infant with asymmetric IUGR is usually better than that
for the infant with nonconstitutional symmetric IUGR, individual
prognosis depends on the avoidance of perinatal asphyxia. Cur-
rently, IUGR may be suspected clinically when there is a 4 cm lag in
fundal height for gestational age, and it is confirmed by serial ultra-
sound examinations. Once confirmed, the management consists of
treating fetal and maternal well-being, and effecting delivery if there
is serious deterioration of either. Careful intrapartum surveillance for
fetal distress enables appropriate intervention if distress is noted.
Thoughtful planning of delivery should include a pediatrician in
attendance.

FIGURE 2
IUGR

INCIDENCE: 3-10% OF ALL PREGNANCIES
PERINATAL MORTALITY: 1 4-8 x
TYPES: SYMMETRIC 2/3
ASYMMETRIC 1/3
PROGNOSIS DEPENDENT ON:
SYMMETRIC: ETIOLOGY
ASYMMETRIC: AVOIDANCE OF PERINATAL ASPHYXIA
MANAGEMENT
TREAT CONTRIBUTING MATERNAL FACTORS
MONITOR FETAL/MATERNAL WELL-BEING
DELIVER IF EITHER DETERIORATE
INTRAPARTUM SURVEILLANCE FOR FETAL DISTRESS
PEDIATRICIAN IN ATTENDANCE AT DELIVERY

The evil weed
Since 1957, smoking during pregnancy has been known to predis-
pose to growth retarded, rather than prematures infants. However,
the mechanism was unknown; suggested possibilities included
carboxyhemoglobin-induced fetal hypoxia, vasoconstriction, reduce-
teroplacental perfusion, suboptimal maternal nutrition, and genetic
differences between smokers and nonsmokers. Mochizuki's study
suggests that retarded fetal growth in heavy smokers is related to
impaired utero-placental circulation secondary to the vasoconstric-
tive effect of nicotine. A prospective, randomized study indicated
that cessation of smoking during pregnancy was associated with
greater mean infant birth weights (92 g). What about the long term
prognosis of children of smokers? Naeye and Peters reported that
children of women who smoked throughout pregnancy tended to
be hyperactive, with short attention spans, and to have impairments
in some cognitive functions.

Prematurity
Prematurity remains the major cause of perinatal morbidity and
mortality in the United States and, as demonstrated by Kessel', we are
still in need of more effective prevention strategies. Some compo-
continued on page 7.
SOAP, 1985, Unleashes the Full Range of Human Emotions

Dr. Noel, Utah, soothes the audience with a ballad, while giving practical demonstration about the benefits of music during cesarean section.

Patsy Dailey seems surprised when complimented on her presentation.

Phil Goldstein displays firmness as he says, "no" to cimetidine.

Mark Norris appears plausible, while David Hood suppresses wonderment at a questioner's stupidity.

Des Writer shows anguish and a stiff upper lip when rising from thumbtack on chair.

MacKenzie from Magee appears astonished at ....

...fake Scott Sheridan from Connecticut expressing satisfaction at the hooch.

Glen Brooks displays elation, as he discovers a Playboy Centerfold among his slides.

Finally, Susan Reisner, succumbs to fatigue, as the pace gets to her.

More about SOAP 1985, in our next issue . . .!
More about birthweight and management

The survival of many VLBW infants depends on whether the obstetrician believes the infant to be viable and aggressively manages the labor and delivery. Therefore, as Goldenberg16 recommends, it is imperative that the physician managing women in preterm labor be fully aware of current neonatal survival rates based on both BW and gestational age at their institution.

The accurate estimation of BW is best made sonographically rather than by a ‘hands on’ approach. Weinberger27 demonstrated that the currently published formulas for calculating fetal weight enable two-thirds of the weight estimates to be within 5 percent of BW. Hence, it would appear that a sonographic estimate of fetal weight should be made before deciding whether a particular fetus is viable and prior to withholding extraordinary care in the face of fetal distress.

Intrapartum fetal monitoring is mandatory for all potentially viable fetuses in preterm labor. If late or severe variable decelerations occur, fetal scalp sampling for pH should be performed immediately. However, it should be recalled that very immature infants may have fetal acidosis while demonstrating only tachycardia and decreased variability, combined with variable decelerations of innocent appearance. If pH sampling proves impossible, and vaginal delivery is not imminent, a cesarean section should promptly be performed. In the preterm infant, intrapartum asphyxia is associated with an increased frequency of IVH, and an increased severity of RDS. In follow-up, Weinberger28 demonstrated that preterm infants (28-33 weeks), with intrapartum acidosis, had a higher rate of neurologic abnormalities in the neonatal period, and neurodevelopmental disabilities at 2 years.

The optimal delivery route for vertex VLBW infants remains a subject of great debate. Rosen and Chik19 demonstrated no obvious benefit of cesarean section over vaginal delivery. While most agree that cesarean section is the optimal route of delivery for a VLBW infant presenting as a breech, to avoid head entrapment, Rosen29 demonstrated no difference in outcome for the selected frank breech delivered vaginally.

From a retrospective review of 53 cases of PROM before fetal viability, Taylor and Garite21 concluded that with conservative expectant management (ie. no tocolysis or steroids) the likelihood of neonatal survival was only 25 percent; and, from limited follow-up, 56 percent of the survivors were developmentally normal. Maternal morbidity, however, was very high (58.5 percent), but no complications resulting in permanent sequelae occurred. Interestingly, the infant’s ultimate survival was uninfluenced by the gestational age at which membrane rupture occurred (ie. less than or greater than 23 weeks). However, gestational age at delivery, less than or greater than 26 weeks, was very important for outcome. 41.5 percent of mothers delivered amnionitis; however, the risk of developing infection did not increase with a longer duration of ROM. In fact, half the patients who developed amnionitis did so within 48-72 hours. The incidence after that remained fairly constant at 32 percent.

What’s new in antepartum fetal surveillance?

Nipple or breast stimulation as a means of producing a contraction stress test seems to be enjoying a bit of popularity recently.20-28 The advantages of this technique over the conventional oxytocin challenge test include its simplicity, shorter time required to achieve satisfactory contractions (15 min), and the avoidance of an IV infusion. The method is as predictable as the OCT and it seems quite safe, although the prevalence of hyperstimulation in the studies cited suggests it is not totally without risk, and should not be an office procedure. Huddleston et al29 considered the best technique for stimulation by gentle finger stroking through the clothes (one side for 2 minutes, then stop for 5 minutes); rubbing the base of nipple with a warm moist cloth caused hyperstimulation in some women, and also proved embarrassing. The mechanism of nipple stimulation has been presumed to be oxytocin release. However, Leake et al30 found that breast stimulation for a short period of time did not result in increased plasma oxytocin levels. Capelle31 noted, when oxytocin was administered after breast stimulation, a significant increase in prolonged contractions.

In 1980, Manning32 developed a fetal biophysical profile scoring system which appeared to provide improved fetal assessment. The variables constituting the profile are the non-stress test (NST), fetal tone, and amniotic fluid volume. The NST is recorded by the multiparameter ultrasound method and the other variables by a real-time ultrasound scanner. Testing takes an average of 20-30 minutes. Basket et al33 used this method to evaluate 2400 high-risk pregnancies and found
that the negative predictive value for normal perinatal outcome was not improved compared to tests of single variable tests. The positive predictive value, however, for abnormal perinatal outcome was improved. Baskett et al. noted that reduced amniotic fluid and diminished fetal movement were the most accurate single variables in the detection of abnormal perinatal outcome, and that there was a lower false positive rate than the NST.

In a prospective, blind, comparative study of 735 high risk patients, Manning et al. also found that, compared to the NST, the biophysical profile resulted in a significantly higher positive predictive value with respect to low Apgar scores (5 min Apgar <7: 57 percent vs 13 percent), and enabled the antenatal detection of all major anomalies. However, the sensitivity, specificity and accuracy of the BPP was not significantly different from the NST. The negative predictive value (98 percent) was similar to that between the two methods. The false positive rate (43.5 percent) of the BPP, however, was quite high.

Serafini et al. studied the ability of the acoustic stimulation test (AST) to predict outcome. The sound was generated by a simple oscillating amplifier and delivered via a 3" speaker placed on the maternal abdomen near the fetal head. Four one second pulses, separated by one second intervals, were applied. The pulses were 1220 Hz frequency and had a sound pressure level of 126 dB. A reactive AST was defined as a FHR acceleration of ≥15 bpm x 120 seconds or 2 accelerations of at least 15 bpm, for at least 15 seconds, within 5 minutes of stimulus. Their data suggest that the AST is as predictive as the NST.

Recent advances in neonatal intensive care have led to significant neonatal survival at gestational ages less than 28 weeks. Therefore, we now have a predictable method of amniocentesis for pregnancy termination at extremely high risk for intrauterine insufficiency from ≥26 weeks. Lavin et al. documented the incidence of nonreactive NSTs at 6 gestational age intervals beginning at 28 weeks. Although the incidence of nonreactivity is higher between 28 and 32 weeks, the majority of fetuses will have a reactive test; to discriminate between false positive NSTs (ie, a NR-NST in a nonaphysiated fetus) and a truly compromised fetus, a BPP or CST may be utilized.

Decelerations - significance
The significance of severe variable decelerations or bradycardia during NST was the subject of two papers. Both suggested that the negative predictive value for normal perinatal outcome was improved. Baskett et al. noted that reduced amniotic fluid and diminished fetal movement were the most accurate single variables in the detection of abnormal perinatal outcome, and that there was a lower false positive rate than the NST.

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Decelerations - significance
The significance of severe variable decelerations or bradycardia during NST was the subject of two papers. Both suggested that the presence of this finding is ominous and mandates further evaluation regardless of reactivity or follow-up CST. If the fetus is mature, decelerations during NST should prompt delivery; on the other hand, in the presence of an immature fetus, further evaluation is warranted.

Decelerations combined with a nonreactive NST, a positive CST, or oligohydramnios are probably grounds for delivery. (The significance of decelerations with a reactive NST and negative CST are unclear, but should at least warrant frequent, preferably daily, retesting if one allows continuation of the pregnancy.) NSTs were found to be a highly reliable and predictive tool in the assessment of multiple gestations from 29 weeks to term. A NR-NST in either fetus was followed by a CST. No episode of premature labor or other complication attributable to the CST occurred. If either fetus had a NR-NST and a positive CST, delivery was accomplished. In the majority of these instances, the twins were discordant with the affected fetus being growth retarded.

Two reports validate the reliability of NST's in assessing fetal well-being in the post-dated pregnancy; testing was performed 2 or 3 times per week. Phelan et al. again stressed the significance of decelerations seen during NST and urged strict consideration for delivering such pregnancies.

Diabetes and the NST
The advent of systems of home glucose monitoring has made the outpatient management of insulin dependent pregnant diabetics a practical reality; however, such an approach makes daily estril assessment unfeasible. Therefore, it is reassuring that Golde et al. found twice weekly NST's a reliable means of fetal surveillance in well-controlled, insulin-dependent diabetics.

Amniotic fluid volume
Chamberlain et al. reported the relation between amniotic fluid volume (AFV), determined prior to delivery, and perinatal outcome in 7582 high risk pregnancies. Increased AFV or polyhydramnios was associated with a significant incidence of major congenital anomalies as well as with a high incidence (33 percent) of fetal macrosomia. Oligohydramnios, on the other hand, was associated with a high incidence of IUGR as well as with a high incidence of congenital anomalies. Therefore, the finding of either increased or decreased AFV on routine ultrasonography requires a careful evaluation to rule out anomalies. Oligohydramnios should also prompt initiation of close antepartum surveillance and consideration for delivery under conditions that allow appropriate support and intervention on behalf of the fetus, as emphasized by Mercer.

Barss et al. concluded that severe oligohydramnios in the second trimester, regardless of the cause or the presence of absence of fetal anomalies, was a poor prognostic sign.

Fetal growth and maturity
Real-time M-mode fetal echocardiography is an exciting new technique for fetal evaluation. As opposed to adult echocardiography, which uses the left ventricle as a major route for fetal evaluation, the neonatal heart is generally not studied in adults. Recent advances in neonatal intensive care have led to significant neonatal survival at gestational ages less than 32 weeks. Therefore, we now have a predictable method of amniocentesis for pregnancy termination at extremely high risk for intrauterine insufficiency from ≥26 weeks. Lavin et al. documented the incidence of nonreactive NSTs at 6 gestational age intervals beginning at 28 weeks. Although the incidence of nonreactivity is higher between 28 and 32 weeks, the majority of fetuses will have a reactive test; to discriminate between false positive NSTs (ie, a NR-NST in a nonaphysiated fetus) and a truly compromised fetus, a BPP or CST may be utilized.

Decelerations - significance
The significance of severe variable decelerations or bradycardia during NST was the subject of two papers. Both suggested that the presence of this finding is ominous and mandates further evaluation regardless of reactivity or follow-up CST. If the fetus is mature, decelerations during NST should prompt delivery; on the other hand, in the presence of an immature fetus, further evaluation is warranted.

Decelerations combined with a nonreactive NST, a positive CST, or oligohydramnios are probably grounds for delivery. (The significance of decelerations with a reactive NST and negative CST are unclear, but should at least warrant frequent, preferably daily, retesting if one allows continuation of the pregnancy.) NSTs were found to be a highly reliable and predictive tool in the assessment of multiple gestations from 29 weeks to term. A NR-NST in either fetus was followed by a CST. No episode of premature labor or other complication attributable to the CST occurred. If either fetus had a NR-NST and a positive CST, delivery was accomplished. In the majority of these instances, the twins were discordant with the affected fetus being growth retarded.

Two reports validate the reliability of NST's in assessing fetal well-being in the post-dated pregnancy; testing was performed 2 or 3 times per week. Phelan et al. again stressed the significance of decelerations seen during NST and urged strict consideration for delivering such pregnancies.

Diabetes and the NST
The advent of systems of home glucose monitoring has made the outpatient management of insulin dependent pregnant diabetics a practical reality; however, such an approach makes daily estril assessment unfeasible. Therefore, it is reassuring that Golde et al. found twice weekly NST's a reliable means of fetal surveillance in well-controlled, insulin-dependent diabetics.

Amniotic fluid volume
Chamberlain et al. reported the relation between amniotic fluid volume (AFV), determined prior to delivery, and perinatal outcome in 7582 high risk pregnancies. Increased AFV or polyhydramnios was associated with a significant incidence of major congenital anomalies as well as with a high incidence (33 percent) of fetal macrosomia. Oligohydramnios, on the other hand, was associated with a high incidence of IUGR as well as with a high incidence of congenital anomalies. Therefore, the finding of either increased or decreased AFV on routine ultrasonography requires a careful evaluation to rule out anomalies. Oligohydramnios should also prompt initiation of close antepartum surveillance and consideration for delivery under conditions that allow appropriate support and intervention on behalf of the fetus, as emphasized by Mercer.

Barss et al. concluded that severe oligohydramnios in the second trimester, regardless of the cause or the presence of absence of fetal anomalies, was a poor prognostic sign.

Fetal growth and maturity
Real-time M-mode fetal echocardiography is an exciting new technique for fetal evaluation. As opposed to adult echocardiography, which uses the left ventricle as a major route for fetal evaluation, the neonatal heart is generall...
Moreover, they no longer demand that the obstetrician and obstetric anesthesiologist remain in-house while the patient labors. (Tut, tut! ED.) They now only require that the hospital be able to prepare for an emergency cesarean section within 30 minutes, the same response time as that required for any acute intrapartum obstetric emergency. Numerous papers attesting to the safety of VBAC were published last year, 49-53. Their conclusions summarized are that approximately 75 percent of patients with prior cesarean section deliver vaginally after trial of labor; the incidence of scar dehiscence is only 1-2 percent; prior cesarean section for a recurrent cause, such as cephalopelvic disproportion or the presence of an unknown uterine scar, does not contraindicate a trial of labor; there is no contraindication to the use of either oxytocin, or regional anesthesia, for these patients. Perhaps the only remaining absolute contraindications to offering a VBAC are multiple gestation, or a previous classical uterine scar. Currently, it remains controversial whether more than one prior cesarean section contra-indicates a trial of labor or VBAC; we feel that it does not, but ACOG recommends offering VBAC only to patients with one prior cesarean section, known low transverse uterine incision, and a singleton cephalic fetus with an estimated fetal weight less than 4000 g.

An increasing number of patients request VBAC, and the problem of how to deal with induction of labor, when indicated, in the presence of an unfavorable cervix or cephalopelvic disproportion becomes more important. MacKenzie et al53 took an extremely bold approach and used 2.5 or 5 mg PGE2 intravaginally for the induction of labor in 143 women with a history of one prior low transverse cesarean section; 76 percent delivered vaginally and there were no cases of scar dehiscence or rupture.

"Get your finger out!"

Clark et al48 found that fetuses who responded either to firm digital pressure on their heads, or a gentle pinch of their scalp with an atraumatic clamp, by demonstrating a FHR acceleration of 25 bpm for at least 15 seconds, uniformly had a scalp pH ≥ 7.19. Of those who didn’t accelerate following scalp stimulation, 40 percent had a scalp pH below 7.19. Therefore, this technique could reduce the necessity for scalp blood sampling by approximately 50 percent in the presence of a FHR pattern suggesting acidosis. Such a provocative test may also be useful to evaluate fetuses with an abnormal FHR pattern suggestive of acidosis when the cervix is insufficiently dilated to permit scalp sampling.

Second stage arrhythmias

Gilstrap et al53 noted that tachycardia and or bradycardia, particularly if associated with lack of variability, in the last 10 minutes before delivery, was predictive of newborns at higher risk of acidosis. Such heart rate abnormalities should prompt the obstetrician to request that a pediatrician attend the delivery, and to ensure that full resuscitation support is available should it be required.

Similarly, this group concluded that persistent unexplained fetal tachycardia in the 10 minutes before delivery defined a population of neonates at increased risk (25 percent) for subsequent neonatal sepsis and or pneumonia. A sepsis work-up would, therefore, seem warranted in such neonates.

Ruptured uterus

Plauche60 provided a timely review of catastrophic uterine rupture. Overall, the documented incidence is 1/1148. Thirty percent of cases occurred in a scarred uterus and 70 percent in an intact uterus. Rupture of an intact uterus was related to administration of an oxytocic drug, obstetric manipulation, labor disorders and external trauma. It was interesting that a number of ruptures in scarred uteri occurred during epidural catheter placement, or at the time of spinal anesthesia. Acute anteflexion of the maternal trunk should thus be avoided in patients at risk. In documented cases since 1978, the fetal mortality rate was 35 percent but there were no maternal deaths.

The risks of C. section

In spite of the frequency of cesarean section, there are relatively few articles defining the associated surgical complications. Nielsen and Hokegard57 found that the complication rate for emergency or nonelective cesarean section was 19 percent, and that for elective section, 4.2 percent. Factors associated with the occurrence of surgical complications in emergency cases included: engagement of the presenting part, labor and rupture of membranes prior to surgery, gestational age less than 32 weeks, previous cesarean section and a less-skilled operator. (Importantly, they suggest that emergency cesarean section requires more skill on the part of the operator; and, therefore, should not be entrusted to young, inexperienced obstetricians.)

Clark et al58 documented 70 cases of emergency hysterectomy for intractable obstetric hemorrhage. The indications for hysterectomy are 43 percent, atony; 30 percent, placenta accreta; 13 percent, uterine rupture; and 10 percent, laceration/extension of uterine incision.

Intramuscular 15-methyl PGF2 alpha successfully controlled postpartum atony in 81 percent of cases documented by Hayashi and colleagues59. (Both studies demonstrated that amniotitis, cesarean section for an arrest disorder, prolonged oxytocin augmentation, MgSO4 therapy and fetal macrosomia are important risk factors for postpartum atony.) More recently, a MAGT suit, together with 15 methyl PGF2 alpha, has been used to avoid hysterectomy in selected cases.

Uterine inversion

Postpartum uterine inversion is a rare but potentially fatal complication (1/2000). Manual replacement often necessitates uterine relaxation. If an anesthesiologist is not readily available, an intravenous bolus of terbutaline might be used as suggested by Kovacs et al.61

Hemodynamics and eclampsia

Hankins et al61 documented the hemodynamic changes in 8 eclamptic patients in a longitudinal study. Initially, they saw hyperdynamic left ventricular function, low left and right filling pressures and an elevated systemic vascular resistance. These findings persisted throughout the first two hours postpartum while fluids were restricted, and therapy consisted of MgSO4 with intermittent hydralazine as needed. Thereafter, those without spontaneous diuresis had elevated PCWP, despite hyperdynamic ventricular function. They hypothesized this phenomenon was due to mobilization of extracellular fluid prior to diuresis.

Cotton and others62 demonstrated that infusion of the loading dose of MgSO4 for severe PIH was associated with a 12 percent increase in cardiac index and a transient fall in MAP, but these changes were not present with the maintenance infusion of MgSO4.

Plasma COP

There has been renewed interest in plasma colloid osmotic pressure, stimulated, in part, by the recognition of pulmonary edema as a complication of tocolytic therapy. Cotton et al63 confirmed, for normal pregnancy, that colloid osmotic pressure uniformly declined from the intrapartum to postpartum period. This is independent of the route of delivery or the type of anesthesia used. Aggressive crystalloid therapy can reduce postpartum colloid osmotic pressures to dangerously low levels.

Sibai and others64 demonstrated that, despite therapeutic Mg levels, 50 percent of pre-eclamptic and 75 percent of eclamptic patients had abnormal EEG findings. Indeed, 4 of 36 eclamptic patients had either clinically apparent or EEG demonstrated seizure activity with therapeutic serum Mg levels. It thus appears that MgSO4 provides incomplete protection to the eclamptic patient, and use of additional or alternative anticonvulsant agents may be warranted in some patients.

The same group described the outcome of their aggressive management approach in 303 cases of severe PIH.65 They observed that chronic hypertension with superimposed PIH was associated with significantly more morbidity than severe PIH alone:

<table>
<thead>
<tr>
<th>Perinatal Mortality</th>
<th>Abruptio Placentae</th>
<th>IUGR</th>
</tr>
</thead>
<tbody>
<tr>
<td>32 percent</td>
<td>8.7 percent</td>
<td>33 percent</td>
</tr>
<tr>
<td>7.7 percent</td>
<td>10 percent</td>
<td>14 percent</td>
</tr>
</tbody>
</table>

Some things never change! The group from Parkland reaffirmed that their protocol for the management of eclampsias (N=245) worked; and, therefore, deserved to be continued.66

Neonatal asphyxia

Cyr et al67 documented changing patterns of birth asphyxia and trauma in the same obstetric service in Montreal during periods 18 years apart. Severe "birth asphyxia", defined by the need for prolonged ventilation, has remained unchanged. Of interest is the documented rise in birth trauma. The reason cited for this rise was the increased use of midforceps from 5 percent to 15 percent which, in turn, may have resulted from a rise in the use of epidural anesthesia (22 percent to 65 percent).
Levine and colleagues documented increased likelihood of mechanical birth trauma in the presence of: midforceps deliveries, shoulder dystocia, forceps delivery, fetal macrosomia, and second stage labor longer than 60 minutes. In a collaborative study of 12 urban teaching hospitals between 1959 and 1966, it was found that among infants over 2500 g, the children with one or more obstetric complications, such as placenta previa, abruption, abnormal presentation, cord prolapse, PPH, etc., and with a 5 minute Apgar score of 5 or less, accounted for 17 percent of infant deaths and 13 percent of cases of cerebral palsy. In infants with complicated births, the low Apgar score served as a marker of fetal-infant compromise which had predictive utility. However, in the absence of obstetric complications, low Apgar scores were not associated with a high level of risk.

References


18. Levine and colleagues
documented increased likelihood of mechanical birth trauma in the presence of: midforceps deliveries, shoulder dystocia, forceps delivery, fetal macrosomia, and second stage labor longer than 60 minutes. In a collaborative study of 12 urban teaching hospitals between 1959 and 1966, it was found that among infants over 2500 g, the children with one or more obstetric complications, such as placenta previa, abruption, abnormal presentation, cord prolapse, PPH, etc., and with a 5 minute Apgar score of 5 or less, accounted for 17 percent of infant deaths and 13 percent of cases of cerebral palsy. In infants with complicated births, the low Apgar score served as a marker of fetal-infant compromise which had predictive utility. However, in the absence of obstetric complications, low Apgar scores were not associated with a high level of risk.

References


Salt Lake City, 1986. A Preview
by Richard Clark, Robert Hall co-hosts

Our next SOAP meeting is only months away, and we hope you plan to visit Salt Lake City for SOAP '86. The meeting will be held at the Westin Hotel Utah, known to many SOAP members as a superb facility for medical meetings, from Wednesday thru Saturday, May 14-17, 1986. We have planned a great variety of activities, in addition to our customary 'Work in progress' reports. These include a pre-meeting seminar on ‘Writing and Presentation of Scientific Papers’, Breakfast Panels relating to Management of Anesthetic and Perinatal complications, and Poster Sessions, to encourage discussions with some authors who submit papers for presentation.

Our ‘extra-curricular’ activities include the following:
A spouse tour of Salt Lake City, and nearby mountain resort town of Park City. An optional dinner at the famous Lion House, followed by attendance at a rehearsal of the Mormon Tabernacle Choir, or a theater presentation of the musical version of “Kiss Me Kate”. A tax advising and tax preparation seminar for spouses.

Free afternoon activities, such as:
SOAP Fun-Run
A tennis and/or racquetball tournament
Children’s activity at Wheeler farm for fun fishing, and feeding of a variety of domestic animals. This will be followed by a visit to the “49th Street Galaria” for a number of activities specially designed for children, moms and dads.
A walking tour of nearby historic sites.

We welcome spouses and children at our breakfasts and the SOAP banquet, and have arranged special entertainment at the banquet to appeal to adults and children alike.

For those interested in seeing more of the colorful West, we offer a post-meeting tour of southern Utah and northern Arizona canyons, including The Arches National monument, Bryce, Zion and Grand Canyons. The 3-day tour terminates in Las Vegas for your flight home from that city.

We have organized a large reception committee to coordinate these activities, and make your arrival and departure from Salt Lake City pleasant and smooth. We remember outstanding SOAP meetings of past years, and are committed to make SOAP '86 an even greater memorable event. Be there!

For more information, contact Robert H. Hall, M.D., 755 Sunrise Avenue, Salt Lake City, Utah 84103.

OPPORTUNITIES

As a service to SOAP members, advertisements for available positions will be printed free of charge as space permits. Ads will be deleted after they have been published in four consecutive issues (one year). Advertisers are requested to notify us as soon as positions are filled. Address all correspondence about ads to the Editor, Chief of Anaesthesia, Grace Maternity Hospital, 5821 University Ave., Halifax, Nova Scotia, Canada B3H 1W3.

ONTARIO One year fellowship in Obstetrical Anesthesia available beginning January 1986 or July 1986. High risk University center with approximately 3,000 deliveries per year. Opportunities to gain clinical experience in all forms of Obstetrical Anesthesia. Active Neonatal Intensive Care Unit. Responsibilities include resident teaching and clinical research. Applicants should be eligible to receive a Canadian Fellowship in Anaesthesiology or equivalent. Please send a letter of application and curriculum vitae to: Dr. S. Halpern, Department of Anesthesiology-Kasum Arakawa, M.D., Chairman, 39th and Rainbow, Kansas City, Kansas 66103. An equal opportunity-affirmative action employer. Applications are sought from all qualified people regardless of race, religion, color, sex, disability, veteran status, natural origin, age or ancestry. M.

Edward Coulter, Administrator, Department of Anesthesiology, University of Kansas Medical Center, 39th and Rainbow Boulevard, Kansas City, Kansas 66103. 11/85

LOUISIANA The Ochsner Clinic, New Orleans is searching for an individual with subspecialty interest in Obstetrical Anesthesia to develop obstetrical anesthesia services. The department of anesthesia currently has 12 staff, 14 residents and 20 CRNA’s. The obstetrical department is rapidly expanding into high risk obstetrical service. If interested please contact or send CV to: James F. Douglas Jr. M.D., Ph.D., Head Dept. of Anesthesiology, Ochsner Clinic, 1514 Jefferson Highway, New Orleans LA 70121. 6/84

FELLOWSHIPS

WISCONSIN The Medical College of Wisconsin is seeking Postgraduate Year 4 Anesthesia Residents to participate in newly developed Fellowships in Obstetric Anesthesia beginning in July, 1984. Full-range program is based in two community hospitals with 6,000 deliveries/year and offers opportunities to gain clinical experience in all forms of obstetric anesthesia in high and low risk patients. Excellent opportunities for clinical or laboratory research as well as medical teaching. It is also possible to design a Fellowship Year to include experience in another area of specialization such as Pain Clinic, Intensive Care, or Cardiac Anesthesia. Applicants are invited to direct inquiries to: Susan K. Palmer, M.D., Director of Obstetric Anesthesia, St. Mary’s Hospital, 2323 N. Lake Drive, Milwaukee, Wisconsin 53211. Phone: (414) 225-8045. 6/84

SPRINGTIME IN ALBION BASIN, UTAH - Just 27 miles east of downtown Salt Lake City, SOAP members can lose themselves in mountain meadows.
Meetings
We've Heard About


SOAP Members!
PLEASE complete and return the membership update form enclosed in this newsletter.

SOAP Newsletter
Page 12

Past President ponders prospect of SOAP floating in Salt Lake.

While noted lecturer issues the "Sol Shnider Slide Challenge" to next year's Fred Hehre speaker. Don't miss SOAP 1986, May 14-17.

The SOAP Newsletter is published quarterly in Halifax, Nova Scotia, by the Society for Obstetric Anaesthesia and Perinatology. Unless otherwise indicated, opinions expressed are those of the Editor and do not necessarily represent the consensus of the Society. Address correspondence to the Editor, Chief of Anaesthesia, Grace Maternity Hospital, 5821 University Avenue, Halifax, Nova Scotia, Canada B3H 1W3.
Regurgitation, and subsequent pulmonary aspiration of gastric contents, remains a major preventable hazard of obstetric anaesthesia. Since the 1970's much has been said and written about drug prophylaxis for the parturient. Here, Gordon Mandell, Bowman Gray School of Medicine, Wake Forest University, Winston-Salem, North Carolina, threads his way through the maze of pharmacologic options.

Aspiration
by Gordon L. Mandell, M.D.

Aspiration of gastric contents is an important cause of maternal mortality accounting for nearly 40% of all anesthetic related obstetric deaths.(1) Ninety percent of these deaths are preventable.(2) When gastric contents exceed 25ml in volume and have a pH of less than 2.5, the patient is at increased risk of developing pneumonitis should aspiration occur.(3) Based on these criteria, 43-65% of non-laboring parturients are “at risk.”(4,5) Similarly, 45-60% of non-pregnant surgical patients are “at risk” as well.(6,7) Recent work in animals, however, suggests that pH may be more important than volume in determining outcome.(8) Regardless, the obstetric patient is unique and at greater risk for aspiration than the non-pregnant patient. Gastric pressure increases during pregnancy, and lower esophageal sphincter tone may concomitantly decrease, and thus barrier pressure may decrease markedly.(9) Additionally, because of the emergency nature of many obstetric procedures, the parturient has often recently ingested food. All parturients have “full stomachs”.

Much of the following discussion concerns pharmacologic efforts to decrease the threat of aspiration by altering gastric pH and volume. However, it is important to remember that prevention of aspiration is the key. Regional anesthesia preserves airway reflexes and lessens the threat of aspiration. When general anesthesia is required, placement of a cuffed endotracheal tube in the awake patient, or following a rapid sequence induction with cricoid pressure is mandatory. Similarly, an awake extubation is also important.

Pharmacologic efforts attempt to reduce the risk of aspiration pneumonitis by elevating gastric pH, decreasing gastric volume, and increasing lower esophageal sphincter tone. Oral antacids, anticholinergics, and Histamine-2(H₂) receptor antagonists increase gastric pH.(5,10-12) H₂ receptor antagonists and anticholinergics may decrease gastric volume as well.(12) Metoclopramide speeds gastric emptying, reduces gastric volume, increases lower esophageal sphincter tone, and is a potent antiemetic.(13,14)

Taylor and Pryse-Davies(10) first studied the effects of oral antacids in obstetric patients. In their series no parturient who received magnesium trisilicate preoperatively had a gastric pH of less than 2.5. In contrast, 42% of control parturients had a gastric pH of less than 2.5. Subsequent studies confirm the effectiveness and reliability of oral antacids in increasing gastric pH.(3,14)

Despite their widespread use, oral antacids apparently do not decrease maternal mortality.(1) Between 1973 and 1978, there were 61 anesthetic related maternal deaths in England and Wales. 23 of these patients died as a result of aspiration, and 18 of these died of “acid” aspiration. 12 of the 18 patients who died of aspiration pneumonitis received oral antacid therapy, usually magnesium trisilicate, particu...
MINUTES OF BOARD OF DIRECTORS MEETING

The Board of Directors of the Society for Obstetric Anesthesia and Perinatology met at noon on Friday, May 10, 1985. Present were Drs. Craft, Hodgkinson, Hall, Clark, Writer, Benedetti, Datta, Finster and Scanlon.

Minutes
Minutes of the previous meeting, having been published in the Summer 1984 Newsletter, were accepted as printed.

Ex-treasurer's Report
Dr. Hodgkinson, ex-treasurer of the Society, presented his account of expenses from the 1984 San Antonio SOAP Meeting:

<table>
<thead>
<tr>
<th>INCOME</th>
<th>EXPENSES</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Registration, Tours, etc.</td>
<td>$35,931</td>
<td>$2,317.78</td>
</tr>
<tr>
<td>Commercial Donations &amp; Exhibits</td>
<td>10,478</td>
<td>4,202</td>
</tr>
<tr>
<td>Donation of Legal Fee by Host</td>
<td>2,400</td>
<td>711</td>
</tr>
<tr>
<td>Bank Interest</td>
<td>2,589</td>
<td>90</td>
</tr>
<tr>
<td>Transferred from 1982 &amp; 1983 Meetings</td>
<td>15,594</td>
<td>3,026.35</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>$66,992</strong></td>
<td><strong>$10,073.10</strong></td>
</tr>
</tbody>
</table>

Dr. Hodgkinson skillfully fielded questions concerning his financial wizardry, and was commended on the transfer of $18,317 to SOAP 1985.

Old Business
Dr. John Craft detailed some concerns relative the 1985 SOAP Meeting. Interest in organized tours had proved only moderate, and some tours were accordingly cancelled. He felt the trouble organizing them significantly exceeded the likely participation.

Concerned that the SOAP Fun Run, timed for 6:00 a.m. on Saturday, May 11, might impair his recovery from post-banquet hangover, Dr. Benedetti wondered if Dr. Craft hoped to establish a tradition by running the marathon at such an early hour. He noted that a similarly unattractive hour had been chosen the previous year. Dr. Craft blamed his decision on the anticipated glorious Washington weather, and pronounced that the run would proceed as planned.

Dr. Hodgkinson emphasized that refunds, many as little as $30 to $40 dollars, accounted for $4,000 of expenses, and a considerable amount of personal time and effort. Dr. Craft suggested there be a cutoff date for refunds at future meetings.

Dr. Bob Hall and Richard Clark, co-hosts of SOAP 1986, then asked some pertinent questions, and elaborated on their already detailed plans for the meeting. They proposed a Wednesday through Saturday meeting, with a half-day free on Friday. The conference hotel would be the Westin Hotel Utah. A spouse tour of Salt Lake City, and a half-day free in advance of the rabble, He also noted that hours for CME credits and tax purposes should be six hours per day for each meeting day. The Board then briefly discussed the question of an honorarium for Alex Pue, unofficial SOAP photographer, whose artistry was felt to merit 'nominal' financial recognition.

New Business
Dr. Writer presented the Secretary-Editor's Report, describing the perils and pitfalls of moving the Editorial Office to Halifax, Nova Scotia, in 1984. There had been disappointing, but perhaps inevitable, delays in Newsletter production, resulting in only two Newsletters for 1984-85. Ever optimistic, Dr. Writer hoped to reestablish a quarterly schedule in 1985, especially if there was sufficient material from the current meeting. He presented the following statement of Income and Expenses to the Board:

<table>
<thead>
<tr>
<th>U.S. Account</th>
<th>Canadian Account</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>INCOME</strong></td>
<td><strong>EXPENSES</strong></td>
</tr>
<tr>
<td>Transferred from SOAP 1984</td>
<td>$9,496.40</td>
</tr>
<tr>
<td>Accrued interest</td>
<td>680.15</td>
</tr>
<tr>
<td>Sale of SOAP mailing lists</td>
<td>103.00</td>
</tr>
<tr>
<td><strong>TOTAL INCOME</strong></td>
<td><strong>TOTAL EXPENSES</strong></td>
</tr>
<tr>
<td>$13,020.88</td>
<td>$10,073.10</td>
</tr>
</tbody>
</table>

**EXPERTISE**

<table>
<thead>
<tr>
<th>U.S. Account</th>
<th>Canadian Account</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transferred from U.S. Account</td>
<td>$3,026.35</td>
</tr>
<tr>
<td>SOAP subscriptions - U.S. funds</td>
<td>2,741.33</td>
</tr>
<tr>
<td><strong>TOTAL INCOME</strong></td>
<td><strong>TOTAL EXPENSES</strong></td>
</tr>
<tr>
<td>$3,060.10</td>
<td>$2,972.81</td>
</tr>
</tbody>
</table>

Dr. Writer then elaborated on the tax status of non-professional organizations, such as SOAP, in Canada. He had learned that:

(a) Excess of income over expenditure would not be taxable;
(b) The first $2,000.00 (Canadian) of interest is non-taxable;
(c) Interest above this amount would likely be taxable, and it was deemed inadvisable to build up too large a balance in the SOAP Newsletter account.

Dr. Craft reported that there would be an invitation by the Obstetric Anaesthetists' Association (OAA) to attend their Oxford meeting in September, 1988. This meeting would be in addition to our annual meeting for that year. There were expressions of concern from the Board about the extent of support, and the possible transportation difficulties involved between London and Oxford. Members thought the costs could be prohibitive for participants, but recognized the need for closer ties with the OAA, and the educational benefit which would accrue to both sides. Dr. Craft said he had extended an invitation to the Washington meeting, but only four members of the OAA attended our annual meeting. The registration fees for some OAA members had been waived for this meeting, and Bob Hodgkinson had provided a subsidy at San Antonio to all OAA members presenting papers, in order to encourage their attendance. However, all charges had been waived when SOAP members attended the OAA.

The Board agreed to invite Dr. Donald Moir, OAA President, to make a presentation at the Business Meeting and determine the extent of likely support by a show of hands. It was emphasized that those attending would do so as individuals, not as representatives of SOAP.

The hoary issue of SOAP's non-profit status surfaced again, and Dr. Hodgkinson presented many reasons why such a change might be difficult. Significant legal and accounting fees would be involved; it would be necessary to provide a 'chit' for every expense entailed (which might prove difficult, especially when using the services of volunteers) and; the mechanics of converting to non-profit status were also complex. Therefore, Board members reiterated their desire not to seek tax-free status at this time.
Dr. Benedetti proposed that honoraria to distinguished speakers and others at the annual meeting be doubled.

Noting the $18,000.00 in the SOAP account, members wondered if there was justification for transferring additional money to the Newsletter account. However, Dr. Hodgkinson reported that he had written more than 300 letters soliciting donations for the San Antonio meeting, and had met with less success than anticipated. He felt, therefore, that we may need an oversage in the account, and suggested retaining the money in the SOAP annual meeting account.

Dr. Clark encouraged the Editor to think about a SOAP directory, available at cost to members. There was then further discussion about the appropriate cost of the mailing list for members and non-members of SOAP. The Board suggested that SOAP members be permitted mailing labels at cost (for example, when organizing scientific meetings), that SOAP sponsors (for example, Astra Pharmaceuticals) should be provided labels at a reasonable fee, as should exhibitors at our annual meetings, but that all other organizations be charged $500.00 for access to the SOAP mailing list.

Finally, Dr. Writer suggested that the financial year for the Newsletter run from 1 July to 30 June. Members accepted his suggestion, and subscriptions would become renewable on the 1st day of July.

There being no further business, and lunch having been amply digested, the Board adjourned to the afternoon session of the Scientific Meeting.

**Report on the Annual Business Meeting**

The annual business meeting of the Society for Obstetric Anesthesia and Perinatology was held at 1630 Hours on May 10, 1985, with John Craft presiding.

**Minutes**

Minutes of the previous meeting were accepted as published in the Summer 1984 Newsletter.

**Board of Directors' Report**

Dr. Writer read the report of the Board of Directors' lunchtime meeting, which was accepted without comment.

**New Business**

Dr. Donald Moir than waxed eloquent on the virtues of a 1988 joint meeting with the OAA, and Oxford's dreaming spires. He had pleasure in inviting SOAP members to attend this centre of academic excellence, a mere stone's throw from Stratford and the beautiful Cotswolds, and just 250 miles from Scotland for those hardy enough to undertake the journey. The meeting would be organized by Drs. Colin Blogg and Len Carrie, and Dr. Moir promised the OAA would do all the work. Noting the earlier expressed concern of the Board of Directors, he emphasized the proximity of Oxford to London, which is but one hour away by bus. On a show of hands, 56 members expressed an interest in attending the meeting.

Nominations for SOAP 1988 were many: Tom Joyce proposed Houston, using the alias Ezzat Abouleish. Describing it as an architect's dream and enthusing about the Astrodome, the Houston Astros, Astro World, and a multitude of other sinful opportunities, Tom thought only Galveston could surpass its many delights. Bob McKenzie then proposed Pittsburgh, which proved too much for Brett Gutsche's spelling, establishing the rule s before t, except after p! The virtues of Pittsburgh seemed to be its rather large hospital, lack of rain and lack of bull, with distant vistas of mountains and hills. Inching westward, Jay DeVore extolled the virtues of Madison, Wisconsin, the birthplace of academic anesthesia, and a beautiful setting. If it were SOAP's wish to return to a central location, which Jay felt to be one of our founding principles, the small, comfortable and inexpensive Madison would be a center par excellence. Sam Hughes, in contrast, believed that SOAP members were ready again for San Francisco.
Continued from page 3

late antacid. There are several possible explanations for this apparent therapeutic failure. (1) The antacids may have been administered but regurgitated before they became effective. Alternatively, they may not have properly mixed with gastric contents. Holdsworth et al. reported pocketing of the stomach in the supine position and recommended turning the patient from side to side in order to ensure adequate mixing of antacids with the gastric contents. (16) Large volumes of highly acid gastric contents may also exceed the buffering capacity of the administered antacid. More recently, Gibbs et al. noted that particulate antacids cause pulmonary damage when instilled in the trachea of laboratory animals. (17) These effects are not seen when clear solutions, buffered to the same pH as antacids, are instilled in the trachea. (17) Sodium citrate, a clear antacid, causes minimal physiologic and histologic changes if aspirated and mixes well with gastric contents. (18) Unfortunately, its efficacy has been questioned.

Early work by Lahiri and others showed that 15 ml of 0.3 molar sodium citrate elevates gastric pH above 3.0 in 95% of parturients in labor. (19) In contrast, Hester and Heath found only 63% of parturients had a pH of greater than 2.5 following the administration of 15 ml of 0.3 molar solution of sodium citrate. (20) They attributed Lahiri’s success to faulty experimental technique. Similarly, Dewan et al., using 30 ml of a 0.15 molar sodium citrate showed that 85% of parturients had a pH of less than 2.5 following sodium citrate administration. (21) However, when 30 ml of 0.3 molar sodium citrate was used the percentage decreased to 9% as long as the drug was administered within one hour of gastric sampling. (5) Other investigators support these results. (22) O’Sullivan and Bullingham noted that although the neutralizing capacity of antacid is important, other factors must be considered, including residual volume, subsequent gastric secretion and, perhaps most importantly, the rate of gastric emptying. (23) Rapid rates of gastric emptying will rapidly sweep the antacid from the stomach and shorten the duration of its action.

In summary, 30 ml of 0.3 molar sodium citrate safely and effectively elevates gastric pH in the paturient and does so without significantly increasing gastric volume. (5) Unlike the H2 receptor antagonists and anticholinergics, sodium citrate acts by neutralization rather than continued dilution of existing gastric contents with non-acid gastric secretions. It thus acts quickly and is useful for both emergency and elective obstetric procedures. Because of its short duration of action, however, it should be administered within 15-20 minutes of the anticipated operative time.

Anticholinergics such as glycopyrrolate alter gastric secretions and should reduce the risk of aspiration pneumonitis. In pediatric patients, Salem and colleagues showed that gastric pH increased significantly and gastric volumes decreased significantly following 7.5-10 μg/kg of intramuscular glycopyrrolate. (24) Similarly, Baraka et al. showed that 0.4 mg of oral glycopyrrolate increased gastric pH above 2.5 in 66% of patients scheduled for elective cesarean section. Unlike Salem he found no change in the volume of gastric contents. (11) Glycopyrrolate is less effective than sodium citrate or cimetidine, decreases LES tone and delays gastric emptying. (25) It does, however, extend the duration of action of antacids if given concomitantly. (26) Unlikely oral antacids, H2 receptor antagonists elevate gastric pH by blocking the action of histamine on parietal cells. (12) The acid content of the gastric secretions is therefore reduced and gradually dilutes the previously existing gastric material. They may also reduce gastric volume. (12) As mentioned before, H2 receptor antagonists have no effect on gastric contents already present, gastric motility, or LES tone. (12)

Several studies compared cimetidine with oral antacids in the obstetric patient with varying results. Husemeyer and Davenport showed that 400mg of cimetidine administered orally 2-6 hours prior to elective cesarean section was less effective than 20 ml of magnesium trisilicate in elevating gastric pH above 2.5. However, the mean volume of gastric contents was less in the group that received cimetidine. (27) Johnston, examining similar patients, administered 400mg of cimetidine orally, 60-175 min. prior to surgery. No patient had a gastric pH of less than 2.5 between 60 and 175 min. following drug administration. After 175 min., 44% had a pH less than 2.5. (28) In the same study, Johnston also examined the effectiveness of oral cimetidine in laboring parturients undergoing emergency cesarean sections. These patients received 400mg of cimetidine followed by
200mg at 2 hour intervals throughout labor. 11% of these women had a pH less than 2.5.(28) In a larger series, Johnston found that 4% of parturients had a pH less than 2.5 at the time of delivery using the same drug regimen.(29)

Pickering et al. gave either 300mg of cimetidine intramuscularly or 30 ml of Gelusil(R) one hour prior to elective cesarean section. 25% of patients in both groups had a pH less than 2.5.(30) Qvist and Storm administered 400mg of intramuscular cimetidine 70 minutes prior to elective cesarean section, and elevated gastric pH above 2.5 in 90% of patients, while decreasing the incidence of gastric volumes exceeding 25 ml from 65 to 8%. (31)

McCaughen administered cimetidine 200mg intravenously 30, 60, 90, and 120 minutes prior to the induction of anesthesia in elective cesarean section patients. When the interval between drug administration and gastric sampling was 60-80 minutes, the pH of the gastric contents was greater than 2.5. However, when the interval was short (30 to 40 minutes) or long (greater than 90 minutes) one third of patients had a pH of less than 2.5.(32)

300 mg of oral cimetidine administered the evening prior to surgery, and supplemented with 300mg intramuscularly 1-3 hours preoperatively, effectively increased gastric pH above 2.5 in all patients reported by Hodgkinson.(33) In the same study, 30 ml of antacid administration elevated pH above 2.5 in 68% of patients. Importantly, mean gastric volume was lower in the cimetidine group (30 vs 11 ml) than the antacid group.

In summary, cimetidine effectively increases gastric pH in the majority of patients, but timing is critical.(28-33) Whether given intravenously, intramuscularly, or orally, 60 min. is required for peak effectiveness.(12) Metoclopramide, a dopamine antagonist, may be a better alternative in the emergency patient. It should also be noted that the intravenous administration of cimetidine has been associated with hypotension, arrhythmias, and asystole, and should be used with caution.(12) Despite its apparent safety, the use of cimetidine in obstetrics is controversial. Cimetidine inhibits liver microsomal enzyme systems and interferes with theophylline, sulfonamides, and propranolol excretion in humans.(12) However, no adverse effects on neonates as assessed by Appgar or neurobehavioral scores have occurred.(33) Ranitidine, a new H2 antagonist, differs structurally from cimetidine, is more potent, and may have fewer side effects. (12)

Metoclopramide, a dopaminergic antagonist, promotes gastric emptying, increases lower esophageal sphincter tone, and is a potent antiemetic. (13) Wyner and Cohen examined the effect of intravenous metoclopramide, 10 mg, in women between 12 and 30 weeks gestation.(4) They administered metoclopramide 15-30 min. prior to the induction of anesthesia and sampled gastric contents following intubation. Gastric volume decreased significantly and only 13% of patients who received the drug had a gastric volume exceeding 25 ml compared to 51% of controls. Cohen also examined the effect of intravenous metoclopramide, 10 mg, in elective cesarean section patients.(6) These patients received metoclopramide, 10 mg, 15 min. prior to induction of anesthesia. Gastric volumes were unchanged and no adverse events were noted in mothers or neonates. McLean and Sharp examined the effects of metoclopramide in laboring patients.(34) In these patients, metoclopramide did accelerate gastric emptying and they suggest that metoclopramide may be more effective in patients where gastric emptying is abnormally delayed. This may explain the effectiveness in the laboring patient where gastric emptying is prolonged. (35) Metoclopramide increases lower esophageal sphincter tone in both pregnant and non-pregnant women. (14) For this reason, metoclopramide may reduce the risk of aspiration by lowering gastric volume, and increasing barrier pressure. Unfortunately, the beneficial effects of metoclopramide on gastric emptying may be antagonized by anticholinergics and narcotics. (13)

The role of metoclopramide in obstetric anesthesia is still unclear. Regardless of the efficacy of any of these prophylactic agents, none guarantees protection against aspiration pneumonitis. Recognition of the risk, meticulous attention to detail, and a secure airway are the best protective measures.

REFERENCES
WEDNESDAY, MAY 14
8:30 a.m. - 12:55 p.m.
Pre-Meeting Seminar
"Writing and Presentation of Scientific Papers"
Westin Hotel Utah
Faculty - Nicholas M. Greene MD, Professor of Anesthesiology, Yale University, New Haven, Connecticut, Editor in Chief of Anesthesia and Analgesia. Betty R. Kuhnert PhD, Associate Professor of Reproductive Biology, Case Western Reserve University Medical School, Director of Laboratories Perinatal Clinical Research Center. Sarah M. Debanne PhD, Assistant Professor of Epidemiology and Bio-Statistics, Case Western Reserve University Medical School, Statistician for the Perinatal Clinical Research Center.
The seminar will consist of presentations by this distinguished faculty, followed by small group participation. Participants whose papers have been selected for presentation at SOAP, 1986, will have the opportunity to preview them in this small group setting.

OBJECTIVES
Whereas the primary objective of S.O.A.P. is to meet, study, and exchange information relative to on-going research and progress in obstetric anesthesia and perinatology, it is the aim of your meeting hosts to not only make the meeting informative, but enjoyable as well. Accordingly, we have geared our arrangements to facilitate your arrival and departure in an efficient and time-saving manner, provide you with the finest hotel accommodations and meeting facilities, and offer informative and entertaining activities for members, spouses, other family members, and friends that might come to Salt Lake City.

TRANSPORTATION
We would like to offer members personalized transportation from the airport to the Westin Hotel Utah. You will have received a registration form in S.O.A.P. mailings. If you can provide us with the date, flight number, and time of arrival, and wish this service, we will arrange to meet your flight and transport you immediately to your hotel. Salt Lake City is served by all major transcontinental airlines, and supersaver fares are available if reservations are made early.

We will have private transportation service available for our outside-meeting activities, including city and mountain tour, fun-run, tennis and racquetball tournament, and family activity at Wheeler Farm and 49th Street Galleria.

YOUR HOTEL MEETING PLACE
Westin Hotel Utah is located in the center of all the major activity in Salt Lake City. Although being "downtown", it is surrounded on all sides by expansive floral gardens that are particularly beautiful in the month of May. Within a single block circumference you may visit two large shopping malls, art and historic museums, symphony hall, the Hansen planetarium, the famed genealogy library, and Mormon Temple Square and Tabernacle. Long a favorite meeting place for medical conventions, the hotel takes pride in its spacious lobby and meeting rooms. The food service is excellent and the sleeping accommodations first rate.

The post meeting tour of the canyonlands takes in magnificent sights, such as the Kennecott Bingham Canyon Mine, which now produces 14% of America's copper.
**Module of Events**

6:00 p.m.  
Optional Dinner at “Lion House” followed by visit to rehearsal of Mormon Tabernacle Choir  
or  
Pioneer Memorial Theatre Presentation of “Chorus Line”

**Friday, May 16**

7:30 a.m. - 9:00 a.m.  
Continental Breakfast and Panel-Clinical problems in Obstetric Anesthesia (see separate details)

9:00 a.m. - 1:00 p.m.  
Scientific Session and Poster Session

1:00 p.m. - 2:30 p.m.  
Lunch

2:30 p.m. - 5:00 p.m.  
Scientific Session and Poster Session

Meeting ends Saturday - 5:00 p.m.

**Sunday-Tuesday, May 18-20**

9:15 a.m. Sunday  
Mormon Tabernacle Broadcast performance on Temple Square

11:30 a.m. Sunday - Tuesday  
Canyonlands Tour Terminating in Las Vegas, Nevada

**Saturday, May 17**

7:30 a.m. - 9:00 a.m.  
Continental Breakfast and Panel-Clinical problems in Obstetric Anesthesia

9:00 a.m. - 1:00 p.m.  
Scientific Session and Poster Session

1:00 p.m. - 6:30 p.m.  
Free Afternoon Activities
  1. Fun run
  2. Tennis and racquetball tournament
  3. Walking tour of historical Salt Lake City
  4. Family Activity at Wheeler Farm and 49th Street Galleria

6:30 p.m. - 7:00 p.m.  
Cocktail Reception and Banquet

**Pre-Meeting Seminar**

“Writing and Presentation of Scientific Papers”. In reviewing the critiques of previous meetings, there was repeated mention that there was need for improvement in presentation of scientific papers. Dr. Betty Kuhnert has graciously offered her services in organizing this seminar to assist speakers with their presentations. Emphasis will be placed on proper use of audiovisual equipment, accurate presentation of statistical data, and fundamentals of scientific writing. The seminar will include a combination of appropriate lectures and hands-on demonstrations.

**Breakfast Panels**

Many members have requested information from the “experts” on “how I do it” as related to management of clinical problems. During two of our continental breakfast sessions, we will have well-known speakers of our group address various issues of high risk obstetrics, providing ample time for discussion and differing opinions regarding management. (See p. 12)

**Accommodations**

For guests and family members, other than members of S.O.A.P., we welcome participation in other activities than the scientific sessions, including continental breakfasts, the luncheon, tours, cocktail receptions, the banquet, and the free afternoon activities—fun run, tennis and racquetball tournament, family activity at Wheeler Farm and 49th Street Galleria. Although continental breakfasts will be complimentary for all, there will be separate charges for other food functions, and reservations are required.
SPOUSE SEMINAR

On Effective Tax Strategies. On Saturday May 17, S.O.A.P., offers spouses/guests an outstanding educational opportunity that will reduce your taxes, improve your financial status and is offered with a money-back guarantee. This session, from 9:00 a.m. to 4:00 p.m., will be conducted by Dr. Helen Gernon, Ph.D., CPA. She is Professor of Accounting and Director of the MBA program at the College of Business of the University of Oregon. She is a nationally recognized tax management expert, and frequent lecturer to professional groups and businesses.

SPOUSE TOUR

OF SALT LAKE CITY, SURROUNDING MOUNTAINS AND PARK CITY

On Thursday May 15, an introductory tour of Salt Lake City, for view of historic sites, shopping centers and residential areas will be followed by a brief ride to the mountains and Park City for lunch, browsing and shopping prior to returning for evening entertainment in Salt Lake City.

Continued from page 1

out the blankets in the shelter of a sand dune and curled up close together. I was proud of the children. They had moved all our belongings down to the beach quickly and efficiently and had gone to sleep on the sand without complaint. As Christine and I held each other and looked up at the stars, I thought about our family's past month together on the island. Before I fell asleep, I put my arm around her belly to check on our baby.

The Birth Day

Christine's labor started at dawn. She moved almost immediately into the warm, calm, and shallow water, a few feet from shore. Even though most people consider underwater birth to be unusual, it could not have felt more natural or logical to us. Christine was radiant as she sat in the ocean. We were all drawn to her contagious positive energy as if she were a magnet. I spent most of the day sitting behind her acting as a kind of human chair. Teo practiced her back float in the waters close by. Megan buried Brit in the sand, and Richard, like some ethereal island spirit, played his flute for us.

Numerous times in the past month, Brit had expressed his anxiety about participating in the birth. I'm sure that he was nervous about seeing his mother naked in the sea and about participating in something so intimate and emotional. Christine, however, gave him the complete freedom to come to the birth on his own terms.

As she labored, Christine expressed an aspect of herself that the children had rarely seen. She was no longer only their mother but a very real person, like themselves, who felt pain and joy and who needed their support and love. Perhaps this is what made the difference for Britt. While most of us made trips to the house for food and water, Britt was the only one to remain on the beach the whole day. He rarely went into the water with Christine, but as he sat and watched, it was obvious that he was giving every ounce of his attention and energy to his mother.

When Christine's contractions intensified, Karin came into the sea and acted as her labor coach. She sat in front of her mother, kept her company, breathed with her during the contractions, and acted as a support when Christine leaned forward. When I looked at the two of them together in the water, I saw a tension of love and energy as if they were a magnet.

One day later, when Karin gave birth to her own baby, she will have a wonderful positive frame of reference for the event.

As the delivery drew near, Megan came into the water with us. She wanted to be a doctor, and she had learned all about the medical procedures of the delivery from her mom. She was to have the honor and distinction of cutting the umbilical cord. With razor, string, stethoscope, suction bulb, and clamps all safely stowed in her nursing pockets, Megan was ready.

When the time came, however, I can't say that I was ready. Christine and Karin were breathing fast, and although it was obvious that Christine was pushing, I hadn't realized that she was in transition. As I sat behind her, I could feel the baby's head was crowning. I tried to say something, but the words died before I could even form them. I looked down and saw a small face looking up at me from under the water. Christine leaned forward onto Karin to make it easier, and out he popped into my hands like a slippery little dolphin. As soon as his face brushed the water's surface, he let out a cry. Megan instantly held the umbilical cord to palpate the pulse and yelled, "It's a boy."

Christine brought our new son, Chris, to her breast and cradled him in the water. After 15 minutes Megan informed us that the umbilical cord has stopped pulsing, and, as she had practiced, she clamped and cut the cord.

Teo was in the water next to her mother. Normally very verbal and full of wondrous stories, she hadn't uttered a peep for the past hour. As all of us gathered in the shallow water around Christine and the new arrival, not quite knowing what to do with our hands, Teo tentatively reached out and lightly touched her new brother on the head. The sense of wonder, joy, and love that was transmitted through the touch made us all speechless.

As we gathered on the beach in the fading light of dusk to help carry Christine and Chris from the ocean to the house, our traditional family roles dissolved and a new bonding took place between us. We had participated together in life's most moving drama.

Tom Callanan is a freelance writer and outdoor-education instructor living in Santa Fe, New Mexico. His son, Chris, is now a healthy and happy 14-month-old.

(Reprinted from American Baby, September 1985. Submitted by Richard B. Clark, University of Arkansas.)

POST MEETING TOUR OF CANYONLANDS

For those interested in seeing more of the colorful west following our meeting, we have arranged a three-day post-meeting guided tour of Arches National Monument, Bryce, Zion and Grand Canyons, to terminate in Las Vegas, Nevada, for your return air travel home from that city. Dates: Sunday, May 17 - Tuesday, May 20, 1986.

So, there's lots to do and see, and much fun in Salt Lake City in May. Plan to be with us!

For additional information contact:
Robert H. Hall, M.D.
755 Sunrise Avenue
Salt Lake City, Utah 84103
Phone: 1-801-532-2736

Editorial

Aqua Vitae?

"I must go down to the sea again, for the call of the running tide Is a wild call and a clear call that may not be denied."

John Masefield's 'Sea Fever' tells of man's compulsive fascination for the oceans, the restless urge to pit frame and wits against nature at her fiercest, and the sweet dream which concludes a day, or a life, at sea. Water is the very stuff of life; we are made of it, survive by it, wash with it, revel in it, thirst for it, and die from lack or an excess of it. Water, Britt was the only one to remain on the beach the whole day. He rarely went into the water with Christine, but as he sat and watched, it was obvious that he was giving every ounce of his attention and energy to his mother.

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Odent believes the warm pool water (37 degrees C, ordinary warm tap water, no chemicals or additives) facilitates the first stage of labor by reducing maternal catecholamines (no blood levels reported); diminishes sensory stimulation when the ears are underwater (but... doesn't sound travel faster in water?); alters nervous conduction (EMG studies described) and; affects peripheral vascular action (now, that I can believe - depending on the temperature, of course!). Odent and his colleagues have observed that water "seems to help many parturients reach a certain stage of consciousness, where they become indifferent to what is going on around them" Aquas Nirvana!

Nearl all the women who enter the Pithiviers pool leave it before delivery, but sometimes the process of delivery can be "extraordinarily fast" underwater. During the second stage, immersion, Odent says, "seems to help women lose their inhibitions, and "most cry out freely during their last contractions." (Really! We sometimes observe extraordinarily fast births out of water in our 'dry' unit, and many women cry out during their last contractions. Natural childbirth, we call it!)

In short, Odent's "study" is uncontrolled, non-randomized, unblinded and biased. However, the Editors of 'The Lancet', on whom the scientific community does not always smile benevolently, deserve a pat on the back, or a warm dip, for publishing it. So scientifically transparent is the paper, one can see through it - without goggles. But don't get me wrong, dear readers; as an aquaphile, and son of a Baptist, I can believe in immersion! I remain to be convinced of its intrapartum virtues.

Neonatologists studying Odent will not overlook the other side of the underwater equation. Odent brings the neonate to the surface "within seconds but without rushing". There, he believes, no risk of water inhalation, since the newborn's first breath is triggered by contact with the air. Only 2 of 100 infants needed airway suction. Other workers, reportedly, allow the naked aquanauts to remain submerged for as long as 15 minutes, providing the cord continues to pulsate and no placental separation occurs. Thoughtfully, Odent encourages mothers to leave the pool before placental separation, thus avoiding the risk of water embolism (and keeping the tub 'clean' for those who follow!)

Are there maternal, or neonatal, risks to underwater birth? Other than water embolism, Odent believes few. No infections occurred, even in women with ruptured membranes; one infant suffered subarachnoid hemorrhage and respiratory failure after delivery in the OP position at 37 weeks. In the unsigned editorial comment on, Tom Callanan's revealing 'American baby' article, (page 1) there is this sage advice: "Underwater birthing is a delicate procedure that is still highly experimental, and should only be attempted by healthy mothers who have professional assistance."

It is because he ignores this advice that I quarrel with Callanan, and his smug self-gratifying family of nautical naturists. This reincarnated Swiss Family Robinson (as they perceive themselves to be) headed for the underwater equation. Odent brings the neonate to the surface "within seconds but without rushing". There, he believes, no risk of water inhalation, since the newborn's first breath is triggered by contact with the air. Only 2 of 100 infants needed airway suction. Other workers, reportedly, allow the naked aquanauts to remain submerged for as long as 15 minutes, providing the cord continues to pulsate and no placental separation occurs. Thoughtfully, Odent encourages mothers to leave the pool before placental separation, thus avoiding the risk of water embolism (and keeping the tub 'clean' for those who follow!)

How close did the Callanans come to spilling the lifeblood of the unborn Chris? As Chris matures will he forgive his parents for taking that risk? Has the home-birth, yogurt and granola, lobby (or any lobby for that matter) the right to imperil the about-to-be born? Before underwater birthing becomes a reality, advocates for the unborn must speak out, perhaps draft legislation. Obstetricians must insist on reasonable standards of intrapartum care for all mothers and babies. Health authorities might consider a ban on ocean births, for all our sakes, or stepping up the shark watch! Obstetric anesthesiologists, perhaps, could stand-by, ready to resuscitate the near-drowned. And all of us, before renting our Caribbean villa with private beach, should find out what the previous tenants were up to!


Research Grants
Announcement

Research Support Program on Productive Hazards in the Workplace, Home, Community and Environment

The March of Dimes Birth Defects Foundation is pleased to announce the continuation of its small-scale, but broadly-based, program designed to recognize and quantify adverse reproductive effects in persons exposed to physical or chemical agents in the workplace, home, community, and environment. Investigations should be designed as a component of an overall model system involving identification of exposed groups at potential risk as well as the quantification and evaluation of risk. Approaches based on the study of exposed groups should emphasize feasibility, detail exposure, investigate dose effects whenever possible, and quantify adverse reproductive effects in a statistically and epidemiologically rigorous manner. Exposed groups at potential risk may be identified by occupational category, place of residence, etc., or by exposure to a specific agent, such as a common drug consumption. Approaches based on the evaluation of risk include development and refinement of appropriate methodologies for detection of adverse reproductive effects by chemicals in model experimental systems; studies of cellular and molecular mechanisms underlying reproductive damage; development and validation of appropriate methodologies for recognizing "early warning" effects in body fluids of exposed workers, such as cytogenetic, genetic, biochemical and molecular techniques; development and application of appropriate methodologies for recognizing adverse prenatal and postnatal effects due to specific exposures; and prospective epidemiological studies of selected high-risk groups.

Requests, in terms of a 300-word abstract, are invited to be received as soon as possible, but prior to May 1, 1986. The abstracts should contain objectives, hypotheses and brief methodologies and should be mailed to the Vice President for Research at the above address. Initial terms of these modest grants may not exceed two years. Also indicate the minimal level of funding per year to be requested. In this first communication no addenda, appendices, reprints and the like will be accepted. Anything received in addition to the summary will not be reviewed.

After receipt of the abstracts, applicants will be advised how to proceed further.

"I am not yet born: O fill me with strength against those who would freeze my humanity, would drag me into a lethal automaton, would make me a cog in a machine, a thing with one face, a thing, and against all those would dissipate my entirety, would blow me like thistledown, lighter and thither or hither and thither like water held in the hands would spill me".

(Louis MacNeice, Prayer before birth)
SOAP '85 Fun Run

Left to Right: David Chestnut (winner 2k race), Charlie Mangan (winner 2k men over 40), Virginia Williams (winner 2k, women under 40), Jean Swenerton (winner 2k, women over 40), Eileen Pue (winner 5k, women over 40), Val Wass (winner 5k, women under 40), David Dewan (winner 5k, men over 40), and Patrick Gibson (winner 5k race).
(David Dewan requests all SOAP members admire his (nearly) parallel legs!)

Jack Scanlon congratulates relaxed David Chestnut on 2k win, and tries unsuccessfully to wrest 2k trophy from Jean Swenerton.

SOAPers not athletic?

Anyone for tennis? Bob Hall and Richard Clark have introduced, for the first time, a tennis and racquet ball tournament on Friday, May 16. Tennis-loving SOAPers can vent their wrath, McEnroe style, in the clear, clean surroundings of SLC, while fun runners saunter thru Salt Lake's sunny pastures.
MASSACHUSETTS Chief of Anesthesia/Staff Anesthesiologist, St. Margaret's Hospital for Women, Boston, Massachusetts. St. Margaret's Hospital has 152 beds, 3 OR's, 4 labor and delivery suites and is the largest Catholic OB Hospital in the country, also the major teaching affiliate of Tuft's University for OB/GYN residents and fellows. Major tertiary referral center for high risk pregnancy. Approximately 3,500 OB deliveries and 1,700 general cases annually. Expansion plans include increasing OB cases, general cases with surgical care type patients and introduction of adult oncology. Requirements: Chief of Anesthesia - Board Certified by the American Board of Anesthesiology, Staff Anesthesiologist - Completion of fellowship in Obstetric anesthesiology and/or in active process of Board Certification. Qualified candidates will have excellent interpersonal communication skills, be diplomatic and affable. Chief must demonstrate leadership skills. Apply to: Darlene J. Calcagno Director of Human Resources, Metropolitan Anesthesia Associates, P.C., 400 Washington Street, Braintree, Massachusetts 02184, (617) 849-0055. 4/86

ONTARIO One year fellowship in Obstetrical Anesthesia available beginning January 1986 or July 1986. High risk University Center with approximately 3,000 deliveries per year. Opportunities to gain clinical experience in all forms of Obstetrical Anaesthesia. Active Neonatal Intensive Care Unit. Responsibilities include resident teaching and clinical research. Applicants should be eligible to receive a Canadian Fellowship in Anesthesiology or equivalent. Please send a letter of application and curriculum vitae to: Dr. S. Halpern, Department of Anesthesia, Women's College Hospital, 76 Grenville Street, Toronto MSS 1B2, Tel. (416) 966-7133. 11/85

KANSAS OB Anesthesiologist - Board Certified or Eligible. Academic experience preferred in this teaching hospital. Responsibilities include both clinical and didactic teaching. Fellowship in OB preferable. Salary commensurate with experience. Send C.V. to: University of Kansas Medical Center, Department of Anesthesiology-Kasumi Arakawa, M.D., Chairman, 39th and Rainbow, Kansas City, Kansas 66103. An equal opportunity-affirmative action employer. Applications are sought from all qualified people regardless of race, religion, color, sex, disability, veteran status, natural origin, age or ancestry.

Pennsylvania The Department of Anesthesiology at Pennsylvania Hospital, a major affiliate of the University of Pennsylvania School of Medicine, has an opening for an individual with a primary interest in obstetrical anesthesia, on or about July 1, 1986. Applicants must be eligible for full or part-time faculty appointment at the University of Pennsylvania School of Medicine. Minimum requirements include board certification or board eligibility (recent graduate); completion of an OB anesthesia fellowship, Pennsylvania state licensure or eligibility. This is a very active patient care and teaching service with 3,900 deliveries a year. Research is encouraged. Send C.V. or contact: Melville Q. Wyche, Jr., M.D., Director, Department of Anesthesiology, Pennsylvania Hospital, 6th and Spruce Streets, Philadelphia, Pennsylvania 19107. The University of Pennsylvania is an EO/AA employer. 4/86

CALIFORNIA Stanford University School of Medicine Department of Anesthesia is seeking applicants, with a special interest in Obstetric Anesthesia, for a faculty position at the Assistant or Associate Professor level. In addition to board certification, additional clinical and research training or experience in the field is required, and candidates must be eligible for or possess a California license. Women and members of minority groups are encouraged to apply. H. Barrie Fairley M.B. B.S., Chairman, Department of Anesthesiology, Stanford University School of Medicine, Stanford, California 94305. 4/86

WASHINGTON, D.C. Director, Obstetric Anesthesia. Must be board certified or eligible anesthesiologist with a specialized year in OB anesthesia or equivalent experience. To work in a 550 bed university hospital with an active obstetric service (1,400 deliveries per year) especially directed toward epidural anesthesia. Forty-eight percent of our patients are considered to be in a high risk category. Active resident teaching service. Clinical and animal research experience preferred. District of Columbia medical licensure is required, academic and research opportunities are available, salary and benefits are excellent including the cosmopolitan advantages of the nation's capital. The George Washington University Medical Center is an equal opportunity/affirmative action employer. Send C.V. and 2 letters of reference to Burton S. Epstein, M.D., Department of Anesthesiology, 901 Twenty-third Street, N.W., Washington, D.C. 20037, (202) 676-3134. 4/86

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104 Abstracts Received for SOAP '86

SOAP's scientific content promises to be better than ever, reports Richard Clark, who has received 104 high quality submissions for SOAP '86. Plan to be there!
Soap '86 Breakfast Panels
Distinguished Experts Tell All!

FRIDAY, MAY 16, 1985
7:30 - 8:30 a.m.
Moderator: Sol M. Shnider, M.D.
How I manage anesthesia for cesarean section in the patient with severe pregnancy induced hypertension
Thomas H. Joyce, M.D.
What I do when I can’t intubate a patient for cesarean section.
Sheila Cohen, M.D.
How I manage a patient for vaginal delivery on anticoagulant therapy.
Ram S. Ravindran, M.D.
How I prevent and treat aspiration pneumonitis in the post-partum tubal patient.
Charles P. Gibbs, M.D.

8:30 - 9:00 a.m.
Panel Discussion

SATURDAY, MAY 17, 1986
7:30 - 8:30 a.m.
Breakfast Panel
Moderator: Bradley E. Smith, M.D.
How I manage the pregnant diabetic patient during parturition.
Brett B. Gutsche, M.D.
How I manage a wet tap
Ezzat Abouleish, M.D.
How I manage anesthesia in the patient with premature labor.
Mieczyslaw Finster, M.D.
How I manage a routine vaginal delivery.
Gersh Levinson, M.D.

8:30 - 9:00 a.m.
Panel Discussion

The SOAP Newsletter is published quarterly in Halifax, Nova Scotia, by the Society for Obstetric Anesthesia and Perinatology. Unless otherwise indicated, opinions expressed are those of the Editor and do not necessarily represent the consensus of the Society. Address correspondence to the Editor, Chief of Anaesthesia, Grace Maternity Hospital, 5821 University Avenue, Halifax, Nova Scotia, Canada B3H 1W3.

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