Greetings to all SOAP members! I am honored to serve as your President for the coming year. As I write this letter, it is a lovely warm summer’s day in Vancouver; I trust that all of you have enjoyed a productive, yet relaxing and refreshing summer. It is my pleasure to bring you up to date on exciting developments within our society.

The most recent annual meeting in Fort Myers, Florida was a rousing success. The evaluations from the members who attended indicate that this was one of the most popular SOAP meetings of all time, and for those who were unable to attend, we missed you! I was impressed with the enthusiastic attendance every day; we even had a near full house on Sunday morning. Despite abundant tropical sunshine and pristine beaches, dedicated SOAPers clearly attended this meeting to partake of the academic and educational sessions. This was the first annual meeting held under the auspices of our new management group at the International Anesthesia Research Society. (For more information, please see the Treasurer's report). The transition has been an almost seamless one, and I believe that we can look forward to many years of a mutually beneficial relationship.

Those who attended the meeting received a CD-ROM of the research abstracts and scientific programs from past SOAP meetings. We are grateful to Dr. Brad Smith, one of the founding members of our society, for compiling "The First Thirty Years of SOAP Research" and placing these historic treasures in an electronic format. If you were unable to attend the meeting, the entire file is available for viewing or downloading in the "Members" section of the SOAP website or you may email our headquarters and request a CD. Thank you, Brad!

Your Board of Directors has approved the formation of an ad hoc International Outreach Committee to be chaired by Dr. Medge Owen. This committee will coordinate individual and group efforts to improve maternal/fetal care in developing countries, and will offer an infrastructure of support to SOAP members wishing to do international outreach. Dr. Owen will be reporting to the Board of Directors, and eventually to the entire membership, with regard to the progress and activities of this worthwhile new committee.

Another exciting SOAP endeavor is the creation of the Repository for Serious Adverse Complications. This will be a database of the complications that challenge obstetric anesthesiologists. Data collection will be anonymous and will exclude patient identifiers, and will include information regarding number of deliveries, number of epidurals, and other demographics, as well as ensuing complications. We hope this project, overseen by the Research Committee (Robert D'Angelo, Chair) will allow for accurate determination of the incidence of a variety of obstetric anesthesia-related complications. You may have received or will receive an e-mail asking for your cooperation. On behalf of the Research Committee, I would like to make a personal plea to all members to participate in this important project.

Dr. Dick Wissler (Past-President) and I recently attended a meeting of the North American Society of Obstetric Medicine (NASOM). This organization consists of perinatologists, obstetricians, obstetric internal medicine specialists and now two anesthesiologists. At present, NASOM is a

Continued on page 2
President's Message

Continued from front cover

small organization (see: www.obmed.org); their meetings are held in conjunction with other specialty societies with common interests. It is hoped that a future meeting will be held with SOAP. You will be meeting some NASOM members at next year’s meeting as we seek to encourage closer collaboration. The 2005 SOAP meeting will feature a lecture entitled: "What’s New in Obstetric Medicine," to be delivered by the president-elect of NASOM.

Speaking of next year, Dr. Bill Camann, Chair of the Annual Meeting Scientific Program Committee, has most of the elements of the meeting in place. I don’t think I am letting the cat out of the bag by letting you know that there will be an exciting debate on the controversial topic of the use of cell savers in obstetrics. I am looking forward to that session! The meeting will be held in gorgeous Palm Desert, California May 4-7, 2005. I hope you are already making plans to attend! Sunshine is guaranteed.

I hope to see many of you at the SOAP sponsored sessions at the ASA in Las Vegas in October. These sessions include the Sol Shnider Breakfast Panel, entitled "New Horizons in OB Anesthesia;" various refresher courses; panels on OB anesthesia and co-existing diseases, and regulatory issues in OB anesthesia; clinical forums; and a debate on whether masks should be used during neuraxial anesthesia. I anticipate that these sessions will be well attended.

As President, I want to thank the hard-working Board of Directors. E-mail allows us to conduct the business of the Society quickly and efficiently. If you have any concerns please feel free to contact me directly. My e-mail address is jdouglas@cw.bc.ca.

M. Joanne Douglas, MD, FRCP
President

Treasurer’s Report

As reported at the Annual meeting in May, the SOAP Board elected not to renew the management contract with Ruggles last fall and voted instead to award the contract to the International Anesthesia Research Society (IARS). The transition occurred on the last day of our fiscal year (October 31, 2003). As a result, the audited numbers I am about to report reflect our expenses while contracted with Ruggles. Those expenses have already been favorably altered since our association with the IARS staff and I will report more completely on the impact our transition has had on our finances in the next newsletter. As for our audited report, we contracted with the auditor recommended and trusted by the IARS staff to review and report on FY 2002 and 2003. The auditing firm, Card, Palmer, Sibbison, and Co. described some discrepancies in the previous report and corrected some of the figures as necessary. I bring this to your attention in case you are in the habit of comparing reports from year to year. You will notice that some of the figures are not the same as previously reported, but happily, we are still doing well financially.

As I did last year, I will review the numbers as they pertain to overall revenue, the annual meeting (revenue and expenses), operating expenses, investments, and research and education funding. I will report the 2003 audited numbers against the 2002 figures and where reasonable, include figures as I understood them to be given available information on 6/30/04. I will comment on any significant changes.

REVENUE

The majority of the Society’s revenue comes from the annual meeting, membership dues, and investment income as defined by dividend income and any realized and unrealized gains/(losses) from our investments. The following table summarizes the past two fiscal years and our year-to-date status.

<table>
<thead>
<tr>
<th></th>
<th>FY2003</th>
<th>FY2002</th>
<th>6/30/04</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dues</td>
<td>$106,770</td>
<td>$120,473</td>
<td>$120,485</td>
</tr>
<tr>
<td>Annual Meeting</td>
<td>$253,488</td>
<td>$261,792</td>
<td>$230,088</td>
</tr>
<tr>
<td>Investment Income</td>
<td>$82,487</td>
<td>($40,052)</td>
<td>$48,163</td>
</tr>
<tr>
<td>Other income</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TOTAL</td>
<td>$457,862</td>
<td>$355,057</td>
<td></td>
</tr>
</tbody>
</table>

As you can see, after a worrisome drop in membership revenue in 2003, we appear to be back to a more acceptable volume for 2004. I will further expand on the Annual Meeting and our investments below.

ANNUAL MEETING

Although our revenue from the annual meeting has dropped over the past couple of years, so have our expenses. The net result has been a profit. The following table reports the two most recent meetings.

<table>
<thead>
<tr>
<th>ANNUAL MEETING</th>
<th>FY2003</th>
<th>FY2002</th>
</tr>
</thead>
<tbody>
<tr>
<td>Revenue</td>
<td>$253,488</td>
<td>$261,793</td>
</tr>
<tr>
<td>Expenses</td>
<td>$232,393</td>
<td>$242,585</td>
</tr>
<tr>
<td>Gain/(Loss)</td>
<td>$21,095</td>
<td>$19,208</td>
</tr>
</tbody>
</table>

Although it is too early to report accurate expense numbers for our 2004 annual meeting, our revenue appears to be greater than our anticipated expenses, signaling another profitable meeting. When compared with the previous years, the 2004 revenue appears disappointing but the bulk of our revenue is based on registrants. We had budgeted for 400 registrants and had 398 attend. Where we lost revenue was in exhibitor support and grant revenue. Both take time and connections to establish and both can be expected to suffer a bit during a transition from one management company to another. However, the losses were substantially offset by a greater than expected revenue for the High Risk Workshop, and the greatly reduced expenses for administration, online abstracts, audio-visual services, and management fees. We also realized some significant tax credits because of our non-profit status.
SOAP INVESTMENTS
Most of you already know this but the stock market has not been kind - again. Yet we still find ourselves doing well in part thanks to our investment management firm, Independence Advisors. The market value of our investments for the previous two fiscal years was as follows:

<table>
<thead>
<tr>
<th>INVESTMENTS</th>
<th>FY2003</th>
<th>FY2002</th>
</tr>
</thead>
<tbody>
<tr>
<td>Market Value (as of 9/30)</td>
<td>$523,881</td>
<td>$454,387</td>
</tr>
<tr>
<td>Investment Income</td>
<td>$82,487</td>
<td>$(40,052)</td>
</tr>
</tbody>
</table>

It is a little difficult to precisely report on the comparable market value gains or losses as Independence Advisors reports quarterly and our fiscal year changes in the middle of a quarter. Despite that and the unfriendly market, we have still seen the value of our investments increase over this fiscal year and a dividend income of $14,533 over the first two quarters of the calendar year. Added to all this will be a substantial contribution from Dr. Marx's estate that will be reported on shortly when the numbers are available.

OPERATING EXPENSES
Again, I would like to remind you that the operating expenses reported here were those incurred while still with our previous management company. We are already seeing significant improvements in our bottom line with our change to IARS.

<table>
<thead>
<tr>
<th>OPERATING EXPENSES</th>
<th>FY2003</th>
<th>FY2002</th>
</tr>
</thead>
<tbody>
<tr>
<td>Management Fees (not associated with the annual meeting)</td>
<td>$47,933</td>
<td>$46,565</td>
</tr>
<tr>
<td>Website</td>
<td>$13,743</td>
<td>$13,536</td>
</tr>
<tr>
<td>Other expenses contributed to the total reported below</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TOTAL</td>
<td>$96,712</td>
<td>$89,349</td>
</tr>
</tbody>
</table>

Under the terms of our previous contract, Ruggles was reimbursed for their services with a monthly fee and also with a percentage of the annual meeting income. As a result, the sum totals of their payment over the past two fiscal years were $96,712 (2003) and $89,349 (2002). The contract with IARS includes the management of the annual meeting as a part of their monthly fee and promises the Society a substantial savings which can be rolled into the costs of maintaining our mission. We were also being charged for website management and maintenance costs that are now included in the fee we pay to IARS, with a few small exceptions. We have already seen substantial savings on that front.

EDUCATION AND RESEARCH
Our mission as a Society is to support research in our field and extend our knowledge to the benefit of childbearing women and their families. Monies distributed for this purpose over the past two years were $22,000 (FY2003) and $39,536 (FY2002). In both years, $20,000 was given to FAER. Outside of the FAER donation, the Board reviews submitted research proposals seeking funding and determines which projects qualify for SOAP support. We encourage the membership to submit worthy proposals for grant support as they are developed. $20,000 will again be donated to FAER for the 2004 FY.

SOAP is financially sound. Despite the stock market, our investments are turning a profit. Dr. Marx generously remembered the Society in her will and as her estate is settled, the Board will determine how to appropriately invest her contribution so that it best reflects her memory and intent. Our transition to IARS demonstrates a positive effect on our bottom line every month and will be more completely delineated in the next article as we approach the end of our first fiscal year with them. Finally, we as a Society could not survive without the strong support of the membership and everyone's commitment to our mission. With that in mind, I respectfully submit this report and remain available to the membership for any questions that may arise.

McCallum R. Hoyt, MD, MBA
SOAP Treasurer
Once again SOAP held a fantastic meeting in a beautiful setting. This year our 36th Annual Meeting was held at the Sanibel Harbor Resort and Spa in Fort Myers, Florida. By and large the weather gods smiled on us and we had sunny, warm weather for our meeting.

This year the meeting was preceded by an optional Workshop on High Risk OB Care, organized by Barry Harrison, MBBS and Gary Vasdev, MD. The participants gave the workshop excellent reviews, with many suggesting that it be expanded to a full day program.

The meeting began officially on Wednesday night with a poolside reception. The music provided a great backdrop for drinks and appetizers. It was a good time to see old friends and make new ones.

Thursday morning began with a chance to view the posters and have some breakfast. (Next year we promise to have a "low carb" option, fruit juice, and to not run out of food!) After Drs. Douglas and Wissler's opening remarks, Dr. Gerry Bassell paid tribute to the life and accomplishments of Dr. Gertie Marx. She is missed by all of us. (Contributions to SOAP-OAPEF may be made in her memory. Contact SOAP headquarters to make your donation.)

The first scientific paper presentation was the Gertie Marx Symposium moderated by Dr. Geraldine O'Sullivan. The winner was Dr. Kristine Stewart for her paper "Comparison of Skin Disinfectants for Epidural Placement in Laboring Patients." Second place went to Dr. Andrea Fuller and third place to Dr. Simon Chau. (L. to R.)

During the meeting there were two Oral Presentation sessions not associated with a competition. Thursday morning's session was moderated by Dr. Kenneth Nelson and Friday morning's session by Dr. Jake Beilin.

The Zuspan Award Symposium was moderated by Dr. Barbara Leighton. The winner of this award, for best paper submitted to SOAP by an obstetrician, was Dr. Errol Norwitz for his paper "Identification and Characterization of Protenomic Biomarkers for Severe Preeclampsia in Cerebrospinal Fluid."

Just before lunch, Dr. Ruth Landau Cahana moderated our first debate, "MLAC Studies: More Ups than Downs?" Drs. Malachy Columb and Robert D'Angelo had a spirited debate about the advantages and disadvantages of using this technique to predict the potency of drugs. The audience found it both thought provoking and entertaining.

Dr. Gary Hankins of the University of Texas at Galveston presented the annual "What's New in Obstetrics?" lecture entitled "Neonatal Encephalopathy and Fetal Monitoring." He described the evidence supporting the observation that insults suffered by the fetus before the onset of labor were responsible for most cases of cerebral palsy. Many attendees felt this was the best lecture of the series in recent memory. Dr. Hankins' slides are available on the SOAP website in the members' section.

During Thursday's annual business meeting, Dr. Gary Vasdev was elected Second Vice President and Dr. Lawrence Tsen was re-elected Secretary. Banff was confirmed as the site of SOAP 2007, and Chicago was chosen to be the host site in 2008.

In a session chaired by Dr. Felicity Reynolds, Drs. Sheila Cohen and James Eisenach discussed ways in which bench research is "translated" into the clinical arena. Their specific topic was "IV and Spinal Drugs for Labor Pain: Fact and Fiction", and it was enthusiastically received by the audience.

Dr. Ruben Quintero of St. Joseph's Hospital in Tampa, Florida presented the "What's New in Neonatology?" Lecture entitled, "Laser Umbilical Cord Surgery for Twin-Twin Transfusion." His talk generated a lot of interest and discussion about anesthetic management and many attendees with experience in the procedure added their comments.

There were three Poster Review sessions, moderated by Dr. Brenda Bucklin, Dr. Pamela Angle, and Dr. Peter Pan (L. to R.). The latter was a review of the interesting case reports. The quality of the abstracts was very high this year and the scientific program committee had a difficult time fitting 140 abstracts into the program.

Dr. Sheila Cohen was awarded the SOAP Distinguished Service Award for her many contributions to SOAP and obstetric anesthesia.
Meeting Program Review – continued

Friday afternoon was devoted to golf, tennis, the pool and the enjoyment of southern Florida.

Saturday morning began with the traditional "Breakfast with the Experts" session, moderated by Dr. Scott Segal. As always, this provided an excellent forum for participants to interact with the faculty and with one another.

Dr. Lawrence Tsen did a marvelous presentation of the annual Gerard W. Ostheimer "What's New in OB Anesthesia" lecture. He identified more than 800 references pertinent to obstetric anesthesia and discussed those of particular interest.

The annual Fred Hehre Lecture, entitled "Maternal Mortality: What Have We Learned and How Do We Use it?" was presented by Dr. Samuel Hughes. It was enthusiastically received by a standing room only audience.

After lunch Dr. David Birnbach moderated a panel discussion, "Practical SOAP: Labor Analgesia Alternatives to Conventional Epidural and CSE Analgesia in Labor." Dr. Valerie Arkoosh discussed the use of 28 gauge spinal catheters for continuous spinal analgesia. This presentation was followed by Dr. Tracie Saunders, who spoke on the use of parenteral opioids for labor analgesia, concentrating on the benefits of PCA remifentanil. Dr. Kathryn Zuspan then espoused the benefits of single-injection spinals ("intrathecals") for a subset of patients requiring labor analgesia, while Dr. William Camann spoke on non-pharmacologic techniques for labor analgesia including doulas, hypnosis, water immersion, acupressure and massage therapy.

There were six abstracts considered for the "Best Paper of the Meeting" Award. Dr. Yehuda Ginosar and colleagues won the competition with their paper "Antepartum Chronic Epidural Therapy (ACET) Using Ropivacaine Improves Uteroplacental Blood Flow in Preeclampsia and Intrauterine Growth Retardation." Their preliminary findings suggest that ACET may improve uterine blood flow in patients at gestational ages between 22 and 32 weeks.

The afternoon's scientific activities concluded with the Research Hour, moderated by Dr. Richard Smiley and Dr. Philip Hess. This was an interactive session devoted to a discussion of research techniques and new approaches to obstetric anesthesia research.

The poolside banquet and its aquatic themed decorations were rained out 30 minutes before the banquet was set to begin, but thanks to the heroic efforts of our IARS management team and the hotel staff, we were hurriedly relocated to a ballroom. Despite the lack of decoration, everyone had a great time dancing to a DJ and enjoying great food and drink.

Sunday morning featured a Pro/Con debate entitled: "Ephedrine, Rather Than Phenylephrine, is the Vasopressor of Choice to Prevent and Manage Spinal-Induced Hypotension." Dr. Donald Penning moderated the debate between Dr. Alison MacArthur (Pro) and Dr. Edward Riley (Con) (L. to R.). The very spirited presentations seemed to convince the audience that our textbooks are in need of revision. A majority of the audience felt that phenylephrine was as useful as ephedrine, if not more useful.

SOAP thanks Dr. Bradley Smith for his monumental efforts to assemble a CD containing all of the abstracts presented at over thirty years of SOAP meetings. This valuable resource was distributed at the meeting and is available to all SOAP members in the members' section of our website. Members should note that PDF files of the meeting syllabus, abstract supplement, and several of the lectures are also available in the same area of our website.

I would also like to thank the SOAP Program Committee and its chair, Dr. Joanne Douglas, as well as our management team at IARS (Pam Happ, Carol Wiant, and Jackie Dzurilla) for the wonderful job they did in planning, organizing, and making this the best ever SOAP meeting. Lastly, a thank you to Drs. Divina Santos and Alex Pue for their fine photography.

SOAP would not be possible without the participation of all of its members, those who submit abstracts and those who attend the meeting. Thanks to all of you and we hope to see everyone next May in Palm Desert, California.
Case Study

How Would I Manage this Case?

Stem Question

A 42-year-old G3P2 with morbid obesity (400 lbs.) at 37 weeks gestation (positive triple screen for trisomy 21) has preeclampsia with worsening SOB when lying flat for vaginal exams. She has been in active labor for 7 hours and is scheduled for C/S for arrest of labor at 4 cm. Her labor epidural, which originally functioned well, is now somewhat patchy.

PMH: Class C diabetes, chronic hypertension, hypothyroidism, hepatitis C, current smoker 1ppd.

PSH: includes 2 previous C/S

Meds: magnesium sulfate, labetalol, synthroid

Airway exam: MP III.

VS: 165/92, HR 95, R26, T98.5, room air SaO2 92% (in the upright position)

Option one:

Regional Anesthesia

Manuel C. Vallejo, MD
Associate Professor
University of Pittsburgh School of Medicine
Associate Director, Obstetric-Anesthesia
Mage-Womens Hospital
Pittsburgh, Pennsylvania

In addition to the normal maternal physiologic alterations during pregnancy (increased risk of difficult intubation and increased risk of aspiration under general anesthesia), which must be taken into consideration, this patient is also a high risk parturient.1 A high risk parturient is defined as one who has a problem with pregnancy itself and/or a concomitant disease, which complicates the pregnancy. This patient has severe preeclampsia (BP = 165/92 with worsening shortness of breath especially when lying flat which could indicate pulmonary edema), and multiple concomitant diseases (Class C diabetes, chronic hypertension, hypothyroidism, hepatitis C, a history of smoking, and a fetus with trisomy 21).

Anesthesia for cesarean section requires the anesthesiologist to determine the urgency of the clinical situation; to consider the normal physiologic changes of pregnancy; to determine and care for ("optimize") concomitant illnesses; to communicate a plan with the obstetrician; and finally to weigh the advantages and disadvantages of regional anesthesia versus general anesthesia for not only the mother, but the fetus as well.

First, before considering any type of anesthetic for the procedure, it is imperative to communicate a plan with the obstetrician to determine the urgency of the clinical situation. Is this cesarean section going to be STAT or urgent (i.e. "hurry-up")? Knowing if you have additional time to redo the epidural and/or perform an awake fiber optic intubation is key to successful management of this patient. Complications in obstetrics, including failed intubation and death, occur mostly during emergency cesarean section under general anesthesia.2,3 Therefore, even if the fetal heart rate (FHR) is inadequate necessitating a STAT cesarean section, it is imperative to not "rush" into a general anesthetic under rapid sequence induction (RSI) with cricoid pressure unless the obstetric anesthesiologist feels confident he/she is able to assure an adequate airway and intubate the trachea without difficulty.

Advantages of regional anesthesia in obstetrics compared to general anesthesia are; a decreased risk of aspiration and airway loss, less blood loss for cesarean section, decreased maternal hyperventilation and oxygen consumption with improved fetal acid base status, decreased maternal plasma catecholamine levels with a resultant decrease in the stress of labor, optimal uteroplacental circulation, fetal oxygenation and less fetal drug depression, and an awake mother who can interact immediately with baby.4 Maximizing uteroplacental circulation is especially important in a parturient with severe preeclampsia. For these reasons, my first choice would be to redo the epidural.

However, the reason for her "worsening SOB when lying flat for vaginal exams" needs to be further explored. Is her SOB caused from pulmonary edema as a result of worsening preeclampsia or treatment with magnesium sulfate? Also, how bad is her SOB? And, can her respiratory status be improved before surgery? It is imperative to find the cause of her SOB and determine if she is able to lay supine during the surgical procedure. If the CXR showed significant pulmonary edema, and she was unable to lay flat, then a general anesthetic with or without an awake FOB tracheal intubation would be the best anesthetic for her clinical situation.

Because of the advantages of regional anesthesia over general anesthesia, and provided the patient can tolerate lying supine, the anesthetic of choice for this patient would be to redo the epidural. Before redoing the epidural however, I would like to obtain or see recent laboratory results exploring the severity of her preeclampsia, chronic hypertension, diabetes, hypothyroidism, and hepatitis C, which could have a significant effect on anesthetic management. Specifically, I would like to see blood coagulation studies (CBC with a platelet count, PT, PTT, INR), liver function tests (SGOT, SGPT, uric acid, bilirubin), renal function tests (BUN/creatinine, urine analysis), and a serum glucose level. I would continue the magnesium sulfate and labetalol for treatment of preeclampsia and blood pressure control. She should also have at least two intravenous catheters to ensure rapid and reliable intravenous access.

Intraoperative anesthetic management in her case would consist of: aspiration prophylaxis with 30 cc of oral sodium bicarbonate, supplemental oxygenation by face mask, FHR monitoring before and

Continued on page 7
Case Study – Dr. Vallejo

Continued from page 6

after epidural replacement, left uterine displacement, standard ASA monitors (BP, HR, EKG, pulse oximetry), and a foley catheter for urine measurement. I would consider placing an arterial line if the patient had frank pulmonary edema, required frequent blood samples, or if the patient required titration of blood pressure with potent vasoactive drugs. A central venous pressure monitor would be indicated if the patient had poor peripheral intravenous access or if the patient was oliguric/anuric.

In conclusion, provided the patient could lay supine without difficulty, and given the advantages of regional anesthesia over general anesthesia, redoing the epidural for the cesarean section would be the best anesthetic for both the mother and baby.

References

Option two:
The Rationale for General Anesthesia

Joanne C. Hudson, MD
Associate Professor
Director of Obstetric Anesthesia
Virginia Commonwealth University Health Systems
Richmond, Virginia

This parturient has major risk factors for peripartum morbidity and mortality: severe preeclampsia, morbid obesity, a difficult airway, age > 35, and the need for a cesarean section.1,6 However, this is not an emergency, and the patient’s condition should be optimized. My priorities are airway control, aspiration prophylaxis, fetal well-being, blood pressure control, and seizure prophylaxis.

The most important causes of anesthetic mortality in the parturient are consequences of the difficult airway: failed intubation and aspiration.1,7,8,9 Failed intubation (1/280) is eight times higher in the obstetric population.10 Obesity increases non-obstetric mortality 2 to 12%, and increases maternal anesthetic risks of death due to failed intubation and aspiration.4,5,8,9 This patient is dyspneic, which may reflect exhaustion due to the increased work of breathing, but pulmonary edema may also be present. Controlled ventilation will be needed, or respiratory failure may occur during delivery. In this setting, I would therefore prefer a controlled oral awake fiberoptic intubation in the sitting position.

Regional anesthesia in the obese is often unreliable, and there is a risk of hypoxia and hypercarbia. Repeat epidurals risk local anesthesia toxicity and high motor block. Excessive supplemental sedation risks airway obstruction. Oxygen consumption, carbon dioxide production and the work of breathing are increased in direct proportion to weight gain.11 In non-obstetric surgery, 77% of obese patients had a PaO2 less than 80mm Hg with a 0.4 FiO2. In fifty percent of normal parturients, closing capacity exceeds FRC. The supine position and steep Trendelenberg further decrease FRC and increase V/Q mismatch.12 An increase of 11% in oxygen consumption and a 30% increase in pulmonary capillary wedge pressure occurred when the obese patients were placed supine.13 Hypocapnia and airway obstruction worsen already existing pulmonary hypertension, as well as increasing PCWP and decreasing cardiac output. In one patient intubation and controlled ventilation reduced PCWP from 38 to 5 mm Hg.14 A significant number of morbidly obese hypertensive women are at risk for pulmonary edema because of increased left ventricular mass and abnormal diastolic function.15 Regional anesthesia cannot guarantee adequate oxygenation and ventilation during a procedure that may take greater than two hours. Consequently, regional anesthesia may require the patient to be intubated emergently once surgery is underway, a hazard for the "can't intubate, can't ventilate" situation.

The two greatest risks for fetal hypoxemia and acidosis are supine hypotensive syndrome and prolonged uterine incision to delivery time. Both are associated with low cord pH and low apgar scores.16 General anesthesia will better protect against both. Once intubated, maternal position can be optimized to relieve aortocaval compression without patient complaint. Likewise uterine incision to delivery time is minimized by providing a fully cooperative patient and muscle relaxation to facilitate delivery.

Anesthetic preparation:
Routine preoperative evaluation should already have occurred. Large bore intravenous access must be guaranteed, blood sent for type and cross match, a foley placed, the fetus monitored and supplemental oxygen given to the mother. A thorough airway evaluation should be performed.17 Indicated laboratory tests include CBC with platelets, glucose, urinalysis, BUN/Cr, liver functions, magnesium, PT and PTT. An arterial blood gas analysis should be obtained, and an echocardiogram is indicated. Bedside pulmonary functions would be useful to document her current status and help to follow her post-operative course. Additional monitoring with an arterial line and

Continued on page 8
on the neuromuscular junction; use of a nerve stimulator is mandatory. After delivery supplemental opioids and benzodiazepines may be given. Excessive bleeding should be anticipated due to uterine atony secondary to both the volatile anesthetic agents, as well as the effects of magnesium on uterine smooth muscle.

Postoperative management:
Postoperative ICU observation would be prudent in this morbidly obese, critically ill patient, whether or not postoperative ventilation is required. Hypertensive crisis, pulmonary edema, seizures, thromboembolism and airway obstruction are distinct possibilities. Extubation should occur only when the patient is both fully awake and demonstrates the ability to maintain adequate ventilation and oxygenation. A conservative approach in a patient with a presumed difficult airway would be to extubate over an intubating stylet or endotracheal tube exchanger.

Conclusion
The management of morbid obesity is becoming an increasing problem in obstetrics. Elective and repeat cesarean section have increased dramatically. Unfortunately, the opportunity for obstetric anesthesiologists to maintain airway management skills has decreased as the safety of regional anesthesia has improved. SOAP has the opportunity and obligation to reduce failed intubations. We can do so by following the ASA algorithm and advocate awake intubation in patients with known difficult airways. We should chose to electively secure the airway in an awake patient rather than risk aspiration and hypoxia by creating the conditions for failed intubation.

References

**Anesthetic:**
The patient should receive supplemental oxygen while sitting upright on the operating table. I would avoid sedation to minimize the risk of aspiration. Topical local anesthetic should minimize the hypertensive response to intubation; additional labetalol or nitroglycerine may be used. The use of esmolol has been described, but animal studies suggest that fetal bradycardia may result. My plan is to administer topical Cetacaine or lidocaine to the oropharynx, and to apply additional lidocaine to the larynx via the suction port of the fiberoptic scope. I would also consider blocking the lingual branch of the glossopharyngeal nerve at the base of the tongue, which is more effective at blocking the submucosal pressure receptors that elicit a gag reflex than is topical anesthesia. I would avoid other blocks. Superior laryngeal nerve block at the hyoid bone can be technically difficult in the obese patient, and transtracheal block is associated with a low but not insignificant risk of bleeding from an aberrant thyroid vessel.

Once topical anesthesia is achieved, the fiberoptic scope can be inserted with a well lubricated 6.0-7.0 endotracheal tube. Placement of a stopcock on the suction port will allow sequential administration of oxygen and supplemental lidocaine. Extension of the cervical spine tilts the larynx anteriorly and lifts the epiglottis off the posterior wall of the oropharynx. Elevation of the mandible by an assistant is often valuable.

Once intubation is confirmed I would induce anesthesia with propofol, which I prefer to thiopental because of its superior ability to prevent bronchospasm. It also satisfactorily blunts the hypertensive response to intubation, and has minimal effects on newborn behavior. I would maintain anesthesia with <1 MAC inhalation agent to minimize newborn depression and the risk of uterine atony. I would avoid nitrous oxide to enable the administration of 100% oxygen. Rocuronium is a suitable choice for providing muscle relaxation, but smaller doses may be required due to the effects of magnesium sulfate...
Case Study – Dr. Hudson

Repository Report

Research Committee Update: The Repository for Serious Adverse Complications in Obstetric Anesthesia

Although advances in obstetric anesthesia have made caring for pregnant women safer than ever, serious complications from anesthesia can occur during labor and delivery. The true incidences of serious complications in obstetric anesthesia remain unknown since no large databases exist that specifically capture this type of information. Characteristics associated with the rare complications we encounter can only be identified using large populations and not from the prospective studies that appear in the literature that typically enroll few patients. In response to this problem, SOAP is attempting to establish a repository for serious adverse complications in obstetric anesthesia. Although a national database would be a worthwhile goal, the repository will initially attempt to capture data encompassing approximately 200,000 deliveries/year from centers across the United States and Canada. Criteria for institutional participation in the repository are a willingness to participate and an established Quality Assurance (QA) program that can reliably capture serious obstetric anesthesia complications. The Section on Obstetric Anesthesia from the Department of Anesthesiology of the Wake Forest University School of Medicine has been selected as the central site for the repository. Participating sites will complete data sheets quarterly and fax them to the central site. In addition, when a serious complication occurs, a brief synopsis of contributing factors will be reported. Confidentiality rules will not be violated since all information will be de-identified in both the data collection forms and in what is entered into the repository data base. The ultimate goals of the repository are to reliably estimate the incidences of serious complications (acquire a good set of numerators and denominators) and to improve patient safety by identifying factors that associate with each complication. If these factors can be identified, recommendations could be made that either reduce the likelihood of the complication or allow faster and more appropriate treatment.

We anticipate having the repository up and running in the near future. Those of you that have agreed to participate in the repository should receive additional information by early September. If you have not heard of the repository or would like additional information, please contact me at 336-718-8278 or by email at rdangelo@wfubmc.edu.

Robert D'Angelo, MD
Chair, SOAP Research Committee

The abstract submission site will be available in November.
Submission deadline: January 14, 2005
Again this year, abstracts for Case Reports will be accepted.
Visit www.soap.org for details.
Ad hoc Committee on International Outreach

Konichiwa, Jambo, Hola, Merhaba, Bonjour, Buon giorno, Czesc, Zdravstvuite, Al Salaam a’ alaykum, Greetings… from SOAP’s new ad hoc committee on International Outreach. The purpose of the committee is to promote safe obstetric anesthesia practices worldwide by organizing educational exchange programs between doctors from many different countries. The committee will help coordinate the efforts of SOAP members doing international work by providing assistance in project development.

We are off to a great start. In September, nine obstetric anesthesiologists (from 3 countries) will meet in Turkey to work in different academic hospitals for two weeks. Regional anesthesia and analgesia for obstetrics is relatively new in Turkey and not widely practiced. Our goal will be to demonstrate regional anesthesia techniques for obstetric patients and serve as a "safety net" for physicians learning management skills and protocols. We also hope to create collaborations that can also lead to interesting clinical research.

The need for regional anesthesia training in Turkey is real. In February, I received an e-mail from an ophthalmologist friend from Istanbul regarding the birth of her second child. Her first child was delivered by elective cesarean section with general anesthesia. She stated, "Dear Medge, I'll have my cesarean section next Saturday. The doctor says my baby weighs 3700 grams and is too big to fit through the birth canal. I'm having the same problem again with my obstetrician. She is against the epidural. She says the patients are feeling pain during the operation and one patient, who is a doctor, had incontinence. Next week I have an appointment with the anesthesiologist and I would like to have your opinion about this. You know, I have a short neck problem as well, and with my first cesarean section they could not intubate me. Can you please send me one of your writings about this so that I'll have enough knowledge when I see the anesthesiologist."

I sent some literature and instructions to the anesthesiologist and Vildan underwent an uneventful cesarean section with epidural anesthesia. Following her surgery she wrote, "I asked the nurses, they said I was the only epidural of seven cesarean sections that day and I was the first who walked, the first for intestinal motility, and I was the only one without pain. This I understood very well when I came home after 48 hours! For my first surgery, I couldn't move at all for 2-3 days because of pain, now I understand the help of epidural anesthesia. Thank you very much for your advice."

There is a worldwide need to improve childbirth conditions and safety. In many countries, pregnancy and childbirth are the leading causes of death and disability among women. The need is great and the committee is already hard at work. In addition to Turkey, site visits are scheduled for the Republic of Georgia (former USSR) in October and for Ghana in November 2004. The site visits will be made by teams of 2-3 individuals to conduct initial needs assessments and then form a project strategy. For 2005, visits in Croatia, Serbia and Mongolia are in the planning stages.

Projects will differ based on the needs and culture of a given country, but four principles must be in place for program development. First, education and change must be desired by physicians within a given obstetric environment. We will not go unless invited. Second, we will focus on countries with established anesthesiology training programs. Resident physicians learn quickly, graduate and work nationwide thus rapidly promoting country-wide change. Our ultimate goal is to improve national standards, not just conditions within isolated hospitals. Third, a given country must have a healthcare infrastructure of hospitals and supplies. Progress should not depend on our ability to provide equipment and medications, but rather education to better use the supplies already possessed. This approach may limit projects in some of the poorest countries with the highest maternal mortalities but unless a country has an established healthcare infrastructure it is unlikely that improvements can be sustained. Finally, through one-on-one bedside teaching, physicians will gain self confidence in the management of regional anesthesia for obstetrics and will quickly gain independence from our committee. As an African proverb states: "Give a man a fish; he'll eat for a day. Teach a man to fish; he'll eat for a lifetime."

Specifically, we will train anesthesiologists to use regional anesthesia for operative and vaginal delivery. In some locations, workshops in newborn resuscitation will also be conducted. We will measure trends and outcomes in the use of regional anesthesia and will present the findings at medical meetings.

If you enjoy travel and want to get involved, please contact me at mowen@wfubmc.edu. We will keep you informed as projects develop. In addition, if you know of physicians abroad who may be interested in training, please inform me.

Remember, we may have different ways to say hello, but…..Oooohhhhh, Oooohhhhh, Oooohhhhh, Oooohhhhh, …labor pain sounds familiar in every language!

Medge D. Owen, MD
Committee Chair

Due to the overwhelming interest expressed for the Pro/Con Debate “Ephedrine, Rather Then Phentylephrine, is the Vasopressor of Choice to Prevent and Manage Spinal-Induced Hypotension” held at the 2004 meeting, these files will be posted on the SOAP website in the members’ section and will also appear in the Winter Newsletter.
Tort Reform

Some important aspects of tort reform for OB anesthesiologists

Given the recent impasse in the US Senate over the President's federal tort reform efforts, such reform initiatives will necessarily have to occur at the individual state level if we are to avoid the professional liability insurance meltdown that is occurring in many states. For instance, here in Maryland, although the number of claims is stable, malpractice jury awards and settlements have doubled in the past three years. This has resulted in similar large increases in insurance premiums. The result has been a growing movement, here as elsewhere, to attempt to legislate tort reform. In the absence of any relief from rising premiums, physicians in high-premium specialties such as OB are threatening to "go bare" - that is, to drop coverage altogether while simultaneously protecting assets from potential jury awards.

These developments have serious repercussions for those who practice OB anesthesia. Two will be discussed here - the "structuring of settlements" as one aspect of tort reform, and "joint and several liability."

If a tort reform "package" is being put together in your state, one of the most important components to you would be the inclusion of a provision for structured settlements of any large awards. Such awards frequently are the result of alleged injury at childbirth, since the injured party, a child, has a long potential lifetime of economic "damages" in addition to any pain and suffering award. In most states, such economic damages are paid out in a lump sum, even though the economic costs for the injured individual's care will be spread out over a lifetime. Spreading out the payments to match the projected costs allows the amount to be annuitized (just as all states do in paying out large lottery winnings), thus reducing the present cost of the award or settlement (as well as the plaintiff attorney's contingency fee). Furthermore, language can be added to the legislation that would logically stop payments in the event of death of the injured party. Since life expectancy is frequently inflated by the plaintiff's experts, this provision would also lower the overall payments while assuring that money is available for care of the injured individual when it is actually needed. It should be noted that studies have shown that lump-sum payments are usually spent (not necessarily on care of the injured individual) within two years of the payment. Structuring the payments simply protects the injured, and is fair for all.

"Joint and several liability" is the rule that when two parties are found to share in the negligence both are liable for contributing to the payment. If one cannot pay, the other is liable for up to the entire amount, even if their contribution to injury is small. Many states have this rule, and if yours is one of them, the result of your obstetrician "going bare" is that anyone else involved in the care could be left making the payment in a liability award (the "deep pocket"). This is one of the reasons that hospitals insist that members of the medical staff carry insurance. Part of the tort reform package in your state should include eliminating joint and several liability from medical malpractice awards (since it would be difficult to eliminate it from all tort cases).

As tort reform evolves in each of the states, many different solutions will be proposed. It is essential that you get involved in the development of your own state's tort reform "package."

Please let me know if this has been useful, or what topics you would like to see discussed in future columns. You can contact me with your comments or with any other questions on tort reform at apharris@jhmi.edu.

Andrew Harris, MD
SOAP Representative, ASA House of Delegates
Minority Whip, Maryland State Senate

Future Meetings

SOAP 37th Annual Meeting
JW Marriott Desert Springs Resort & Spa
Palm Desert, California
May 4-7, 2005

SOAP 38th Annual Meeting
Fontainebleau Hilton Resort
Miami Beach, FL
April 19-23, 2006

SOAP 39th Annual Meeting
Fairmont Banff Springs
"Castle in the Rockies"
Alberta, Canada
May 16-19, 2007
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2 Summit Park Drive, Suite 140
Cleveland, Ohio 44131