Obstetric Anesthesia for a Patient with Super-morbid Obesity and History of Disseminated Blastomycosis Complicated by Epidural Abscess

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Background

Blastomycosis
- Caused by *Blastomyces dermatitidis*
- Endemic to the southeastern, south central, and Midwestern US

Blastomycosis in pregnancy
- Commonly presents as disseminated disease in the 2nd and 3rd trimesters

Symptoms
- Cough, fever, shortness of breath, night sweats, and weight loss

Treatment
- IV amphotericin B transitioning to oral itraconazole or voriconazole after delivery

Clinical Presentation

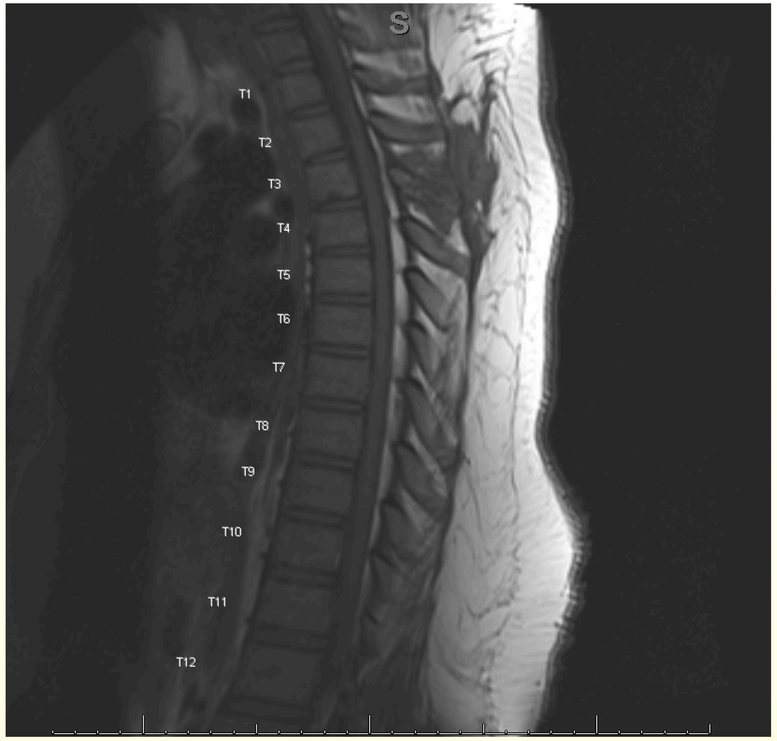
A 23-year-old G3P1 female at 37w4d gestation presented for induction of labor due to preeclampsia

Past Medical History
- No prenatal care
- Preeclampsia with severe features in a previous pregnancy
- Asthma
- Morbid obesity (BMI 67)

- History of disseminated blastomycosis during a 2017 pregnancy complicated by epidural abscess, osteomyelitis, acute renal failure requiring dialysis, and ARDS requiring ECMO cannulation
- Patient incompletely treated, having received only 5 of 12 recommended months of voriconazole

Physical Exam
- Obscure bony landmarks
- Mallampati II airway, thick neck

Pertinent vitals and labs
- BP 147/74
- Protein: creatinine ratio



MRI spine:
"Edema of the right paraspinal soft tissues is seen from T2 through T4 with an associated intrathoracic, possibly pleural-based fluid collection. Fluid collections are also seen in the posterior paraspinal soft tissues at T2 and T3. Given the patient's history, these collections likely represent abscesses, potentially containing some blood product as well.
2. Minimal if any marrow edema is seen within the T2-T4 vertebrae. With the limitations of a non-contrast examination, no definite epidural abscess is seen."

Clinical Course

- Infectious disease consult to determine the risk of persistent or latent epidural blastomycosis
- Further treatment deemed unnecessary by infectious disease given lack of symptoms
- An uncomplicated ultrasound-guided dural puncture epidural procedure provided adequate analgesia
- 12.5 hours after epidural catheter placement the patient had an uncomplicated spontaneous vaginal delivery

Discussion

Infectious Disease Society of America (IDSA) Guidelines for treatment of CNS blastomycosis:
- 4-6 weeks of liposomal amphotericin B followed by an oral -azole for at least 12 months and until resolution of CSF
- Several reports of blastomycosis relapse after therapy completion
- Infectious disease consult obtained due to history of incompletely treated disseminated and epidural blastomycosis
- Goal of infectious disease consult was to aid the risk benefit analysis of epidural analgesia

Risks of Epidural	Benefits of Epidural
• Recurrence/worsening of disseminated infection of incompletely treated blastomycosis	• Avoidance of general anesthesia in case of cesarean delivery (increased with obesity and pre-eclampsia) • Avoidance of risk of airway mishaps (unfavorable airway, obesity, pre-eclampsia) • Analgesia

References

- Baker: Diagnostic Microbiology & Infectious Disease 2017; 88:145
- Clin Infect Dis 2008; 46:1801