Introduction
Spinal pseudomeningoceles are extra-dural collections of cerebrospinal fluid (CSF) that may result from inadvertent tears in the duralarachnoid layer and occurs most often as a result of lumbar laminectomy. We present a case of a 16 yo female patient who underwent a L5-S1 laminectomy complicated by spinal pseudomeningocele and successfully treated with an autologous caudal epidural blood patch (EBP).

Case
The patient is a 16 year old female who presented for L5-S1 laminectomy. Surgery was uneventful except for an inadvertent durotomy. A water-tight closure was ensured with non-absorbable sutures, a muscle patch, and DuraSealTM.

Four weeks later, she presented to the ER with complaints of severe positional headache, nausea, and photophobia. A MRI of the spine was obtained which revealed a moderate size pseudomyelomingocele with CSF leakage to the thoracic level. A conservative course of intravenous hydration, ketorolac, caffeine, and abdominal binder was initiated with minimal relief of the patients symptoms. Due to concern of re-injury during surgical re-exploration, the anesthesiology service was consulted for EBP. 15 mL of autologous blood was placed above the surgical incision at L3-4. She requested to be discharged home despite modest relief with EBP.

She was re-admitted for worsening headache a week later. After discussion with the neurosurgical service, the patient underwent a caudally placed epidural blood patch with 20 mL of autologous blood using the assistance of ultrasonography. Within 24 hours after the EBP, she had complete resolution of her symptoms and continues to be pain free.

Discussion
The technique of epidural blood patching is a common procedure for the management of post-dural puncture headache and has been described for treatment of subarachnoid fistulas. There are no reported cases on the use of caudal EBP for management of pseudomeningoceles in the pediatric population. The location of the leakage occurred near the S1 lamina, and we suspect that the first EBP was unsuccessful because of limited caudal spread from edema, adhesions, and CSF. By injecting the blood via the caudal route with ultrasound assistance, we bypassed the surgical site and visualized the rostral spread. Symptoms of post-dural puncture headache typically resolve in 95% of patients within 6 weeks and success of EBP is usually >90% when performed within 72 hours at the same level. Atypically, our patient continued to have CSF leakage 6 weeks after the injury. The EBP resolved the patients symptoms and prevented a surgical re-exploration with the associated anesthetic and surgical morbidity. This is one of the few case reports of successful treatment of a surgically induced dural defect with caudal EBP in a pediatric patient.