Complete resolution of spinal headache with a single dose of IV cosyntropin in a 10 year old girl: A case report

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Background
Cosyntropin is a synthetic analog of adrenocorticotrophic hormone (ACTH) which has been implicated as a potential treatment for postdural puncture headache. There have been a handful of case reports of successful treatment of postdural puncture headache with cosyntropin; however, there are no reports or studies of its use in the pediatric population. We report a case of successful treatment of postdural puncture headache in a pediatric patient with cosyntropin.

Case Report
We report a 10 y/o, 38 kg girl with a history of schwannoma who had recently undergone a posterior craniotomy for tumor removal and placement of a spinal drain. The patient had an uneventful postoperative course and was discharged home on POD 5. Approximately 24 hours after discharge, the patient developed a severe positional headache associated with vomiting and returned to the ED. Her symptoms resolved with conservative measures, including rest, IV fluids, and IV caffeine. However, approximately 36 hours later her symptoms recurred and she returned to the hospital. Her initial exam was consistent with PDPH; she was lying flat in bed and could not sit upright without severe headaches and vomiting. She had received IV fluids and caffeine without improvement. Our pain service was consulted to evaluate for possible epidural blood patch. The risks and benefits of the procedure were discussed with the patient and family; however, OR time would not be available until that evening, so the parents agreed to a trial of IV cosyntropin. She was given a single dose of intravenous cosyntropin (250 mcg). Approximately two hours later, she was able to sit up in bed and ambulate without pain. She had complete resolution of headache and was discharged home the following morning. She had no further recurrence of ambulate without pain. She had complete resolution of headache and was discharged home on POD 5. Approximately 24 hours after discharge, the patient developed a severe positional headache associated with vomiting and returned to the ED. Her symptoms resolved with conservative measures, including rest, IV fluids, and IV caffeine. However, approximately 36 hours later her symptoms recurred and she returned to the hospital. Her initial exam was consistent with PDPH; she was lying flat in bed and could not sit upright without severe headaches and vomiting. She had received IV fluids and caffeine without improvement. Our pain service was consulted to evaluate for possible epidural blood patch. The risks and benefits of the procedure were discussed with the patient and family; however, OR time would not be available until that evening, so the parents agreed to a trial of IV cosyntropin. She was given a single dose of intravenous cosyntropin (250 mcg). Approximately two hours later, she was able to sit up in bed and ambulate without pain. She had complete resolution of headache and was discharged home the following morning. She had no further recurrence of ambulate without pain. She had complete resolution of headache and was discharged home on POD 5. Approximately 24 hours after discharge, the patient developed a severe positional headache associated with vomiting and returned to the hospital. Her symptoms resolved with conservative measures, including rest, IV fluids, and IV caffeine. However, approximately 36 hours later her symptoms recurred and she returned to the hospital. Her initial exam was consistent with PDPH; she was lying flat in bed and could not sit upright without severe headaches and vomiting. She had received IV fluids and caffeine without improvement. Our pain service was consulted to evaluate for possible epidural blood patch. The risks and benefits of the procedure were discussed with the patient and family; however, OR time would not be available until that evening, so the parents agreed to a trial of IV cosyntropin. She was given a single dose of intravenous cosyntropin (250 mcg). Approximately two hours later, she was able to sit up in bed and ambulate without pain. She had complete resolution of headache and was discharged home the following morning. She had no further recurrence of ambulate without pain. She had complete resolution of headache and was discharged home on POD 5. Approximately 24 hours after discharge, the patient developed a severe positional headache associated with vomiting and returned to the hospital. Her symptoms resolved with conservative measures, including rest, IV fluids, and IV caffeine. However, approximately 36 hours later her symptoms recurred and she returned to the hospital. Her initial exam was consistent with PDPH; she was lying flat in bed and could not sit upright without severe headaches and vomiting. She had received IV fluids and caffeine without improvement. Our pain service was consulted to evaluate for possible epidural blood patch. The risks and benefits of the procedure were discussed with the patient and family; however, OR time would not be available until that evening, so the parents agreed to a trial of IV cosyntropin. She was given a single dose of intravenous cosyntropin (250 mcg). Approximately two hours later, she was able to sit up in bed and ambulate without pain. She had complete resolution of headache and was discharged home the following morning. She had no further recurrence of