Epidural Blood Patch for Successful Treatment of Lumbar Cerebrospinal Fluid Leak from an Intrathecal Catheter Fistula in a Child
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Introduction: Treatment of cerebrospinal fluid (CSF) leakage from a dural fistula secondary to an intrathecal catheter is difficult. In the past, open surgery has been the standard recommendation, although the rate of recurrence has been high. The epidural blood patch (EBP) technique is well established in the treatment of post dural puncture headaches(1,2) and there are several reports describing EBP technique to treat symptomatic CSF leak in children secondary to catheter placement which involved catheter withdrawal (1,2). However, very few cases have been reported in children regarding the use of EBP technique for symptomatic CSF leak while keeping the intrathecal catheter in place (3,4). Theoretical considerations about the mechanism of action seem suitable for occlusion of spinal leakage in the presence of an intrathecal catheter. In this case details are given for successful treatment of cerebrospinal fluid fistula by radiographic guided injection of autologous blood. The method is easy to perform and the risks are minimal when proper precautions are observed.

Case Report: We present a 7 year old girl with spastic diplegic cerebral palsy secondary to periventricular leukomalacia from prematurity of birth, had been nonambulatory because of her lower extremity spasticity requiring baclofen pump for independent ambulation by reduction of her spasticity. However, 3 weeks after the surgical implantation of the baclofen pump, she presented with wound dehiscence at the site of baclofen pump with CSF draining out via the abdominal incision. She subsequently underwent four more surgical procedures for the management of symptomatic CSF leak over the period of one year (total of six procedures) including the removal (which resolved the CSF leak) followed by replacement of baclofen pump secondary to inability to ambulate due to increased spasticity. She again presented with CSF leak which was progressively getting worse. Pain service was consulted for consideration of an Epidural blood patch. Patient underwent placement of an Epidural Blood Patch with intrathecal catheter in place with the help of fluoroscopic guidance and radio contrast medium under general anesthesia. This patient’s CSF leak was completely resolved along with headaches.

References: