**INTRODUCTION**

- With an incidence of 5/100,000 adults per year, spontaneous intracranial hypotension (SIH) is uncommonly seen in children and adolescents, and is frequently misdiagnosed.1
- Characterized by a dull, throbbing headache, it may be global or localized to the occipital, temporal, or frontal regions.
- Its most distinguishing feature is its positional dependence, exacerbated when sitting or standing and relieved when recumbent.
- We report the case of an otherwise-healthy 15-year-old boy with spontaneous intracranial hypotension, who was successfully treated with a thoracic epidural blood patch.

**CASE DESCRIPTION**

- An otherwise-healthy, 15-year-old boy with a past history of suspected SIH presented with a 1 week history of severe, daily postural headaches.
- Seven months ago, he was treated for his SIH headaches with a thoracic epidural blood patch (EBP) at T6-T7 using 40 ml of autologous blood, which resolved his symptoms completely within 24 hours.
- He remained symptom free for seven months until the recurrence of his headaches now, which were identical to the earlier episode and presentation.
- IV fluids, caffeine, and ketorolac were not helpful.
- Due to the strong suspicion of SIH, a repeat EBP was performed at T8-9 with 16 ml of autologous blood under sedation.
- A second EBP at L3-L4 was performed by the interventional radiologist in conjunction with a CT myelogram a day after his headaches remained unresolved. The opening pressure on the lumbar puncture was 12 cmH₂O.

**CASE DESCRIPTION (CONTINUED)**

- A brain MRI performed the day after was normal. Postural worsening of symptoms prompted performing a third EBP at T6 level with 35 ml of autologous blood.
- His symptoms resolved for a few hours but the intensity of his headaches was 4/10 later that night.
- He was discharged home with follow up arranged with neurology.

**TYPICAL THERAPY**

- **Conservative therapy** – IV hydration, bed rest, caffeine, analgesics and steroid therapy
- **Epidural Blood Patch** – 10-12 ml of autologous blood injected into the epidural space
  
  If EBP fails and the site of leak localized, injection of fibrin glue or surgical repair may be a more definitive option

**DISCUSSION**

- SIH is thought to result from CSF leakage due to a weakness in the meninges secondary to a connective tissue disorder, ruptured arachnoid membrane, or meningeval diverticula and the leaks are most often found at the cervicothoracic junction or along the thoracic spine.
- Opening pressure is less than 60 cmH₂O.
- 20-30% of patients may have no changes on brain MRI.
- After conservative treatment has failed, epidural blood patch (EBP) is the treatment of choice. Placement of an EBP causes initial tamponade and subsequent fibrin deposition and scar formation at the site of the leak.
- Immediate improvement or resolution of symptoms is often seen, and EBP may be therapeutic or diagnostic.
- A high-volume thoracic EBP is recommended if a low volume or lumbar EBP have failed.

**CONCLUSIONS**

- SIH is an infrequently documented cause of postural headache in the pediatric population. A few case reports have been identified with similar findings2,3,4,5
- Very little documentation available for management of SIH in the pediatric population 1,2,3
- Epidural blood patch is the treatment of choice1,2

**REFERENCES**