FORAMEN MAGNUM SYNDROME AFTER IATROGENIC CSF LEAK FROM LUMBAR SPINE SURGERY: A CASE SERIES

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DISCLOSURE

Nothing to disclose
INTRODUCTION

• Foramen magnum syndrome is a rare complication from lumbar spine surgery. CSF leaks in spine surgery are usually treated without major consequences.

• A small percentage are refractory to standard interventions and can cause a plethora of postoperative sequelae.
METHODS

• We present 2 cases of foramen magnum syndrome after iatrogenic CSF leaks acquired during lumbar spine surgery and their management.
RESULTS

• Case 1 is a 31 year-old male who had an elective L4-S1 laminectomy. CSF leakage was identified in postoperative period. Primary closure was unsuccessful and he was treated with lumbar drainage. He subsequently developed headaches and confusion. Radiographically he had evidence of tonsillar ectopia. He was taken back for surgery and post-operatively showed clinical and radiographic improvement of his iatrogenic intracranial hypotension.
RESULTS

- Case 2 is a 51 year old male who underwent a revision L2-4 laminectomy. No durotomy or CSF leak was noted during the surgery. He developed significant headaches in the early post-operative period. A CT myelogram revealed a large CSF leak. A lumbar drain was then placed. Subsequently he became lethargic. A CT of the head revealed a posterior fossa hemorrhage with fullness of the foramen magnum and hydrocephalus. An emergent right frontal EVD was placed and the lumbar was drain was then clamped. The lumbar drain was removed and the dural tear was repaired primarily. He recovered clinically and radiographically no longer has tonsillar ectopia.
• Figure 1 left: Case 2 sagittal T1 weighted MRI with evidence of tonsillar ectopia.
• Figure 1 right: Case 2 non contrasted axial CT scan with evidence of tonsillar herniation, posterior fossa hemorrhage which led to acute hydrocephalus.
DISCUSSION/SUMMARY POINTS

• CSF leaks can be difficult to treat particularly with dural deficiency and long-segment tears.

• Treatment of foramen magnum syndrome requires prompt diagnosis followed by cessation of the intentional or unintentional CSF diversion.

• Some situations will require proximal, rather than distal CSF drainage, to prevent tonsillar herniation.

• Excessive distal CSF drainage might be catastrophic, whether it be from a dural tear or from “controlled” lumbar drainage.