**SUMMARY**

**TITLE: REFRACTORY LATE-ONSET CSF FISTULA FOLLOWING MAMMOPLASTY: REPORT OF A RARE COMPLICATION**

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**CASE PRESENTATION**

A 40-year-old woman underwent elective breast implant replacement under thoracic epidural anesthesia at T4 level with intravenous sedation. After 25 days of uneventful recovery, she experienced headaches at the nuchal and occipital regions. Initial treatment for muscular cervicalgia did not improve her symptoms, and further investigation revealed orthostatic headache due to cerebrospinal fluid (CSF) hypotension caused by an iatrogenic fistula resulting from dural puncture at the anesthesia site revealed by a head and spinal Magnetic Resonance Imaging (MRI). Conservative treatment with bed rest, hydration, and analgesics for 4 days did not alleviate the headache.

A CT-guided Epidural Blood Patch (EBP) was performed, with the patient tolerating 6 mL of peripheral blood injection before eliciting local pain. Bed rest was maintained, but orthostatic headaches resumed. A second EBP was performed 12 days later, injecting 15 mL of peripheral blood at T3-T4 and 10 mL at T12-L1 epidural spaces. She remained hospitalized for two days and was discharged, being instructed to bed rest for five days. At the last follow-up, eight months later, she had no headaches or neurological symptoms.

**DISCUSSION**

Thoracic epidural anesthesia can be associated to general anesthesia in mammoplasty due to its prolonged analgesia effect, carrying the risk of unintentional dural puncture followed by PDPH in 0.32% to 1.23% of cases. PDPH diagnosis is mostly clinical and signs of reduced CSF pressure can often be observed in head and spinal MRI, which can also help to locate the origin of the CSF fistula.

Symptoms of PDPH usually present before postoperative day (POD) 3, and the latest onset reported in literature was observed by POD 6. Successful treatment is often attained by POD 10 with analgesics and bed rest. Refractory cases can be treated with EBP. Its success rate ranges between 68-90% and reaches up to 97% when a second EBP is needed.

**CONCLUSION**

This case is unique regarding the very late onset of PDPH symptoms at POD 25 following thoracic epidural anesthesia for mammoplasty, resolved only after repeated EBP. To our knowledge, the combination of these characteristics has not been previously reported in literature.