Pituitary infundibular epidermoid cyst

Prolonged postoperative pyrexia (PPP) due to Mollaret's meningitis following endoscopic transsphenoidal surgery (eTSS) for an intracranial epidermoid cyst can be confused with postoperative meningeal infection after transsphenoidal resection, especially in the middle of the COVID-19 pandemic. Anosmia, as well as dysgeusia, cannot be evaluated in patients of eTSS for a while after surgery. We report a case of an infundibular epidermoid cyst with post-eTSS Mollaret's meningitis (MM). The post-eTSS MM caused vasopressin-analogue-resistant polyuria (VARP) in synchronization with PPP. A 59-year-old man experiencing recurrent headaches and irregular bitemporal hemianopsia over three months was diagnosed with a suprasellar tumor. The suprasellar tumor was an infundibular cyst from the infundibular recess to the posterior lobe of the pituitary, which was gross-totally resected including the neurohypophysis via an extended eTSS. Since awakening from general anesthesia after the gross total resection (GTR) of the tumor, the patient continuously had suffered from headache until the 13th postoperative day (POD13). The patient took analgesics once a day before the surgery and three times a day after the surgery until POD11. Pyrexia (37.5-39.5 degree Celsius) in synchronization with nonnephrogenic VARP remitted on POD18. Intravenous antibiotics had little effect on changes of pyrexia. Serum procalcitonin values (reference range <0.5 ng/mL) are 0.07 ng/mL on POD12 and 0.06 ng/mL on POD18. His polyuria came to react with sublingual desmopressin after alleviation of pyrexia. He left the hospital under hormone replacement therapy without newly added neurological sequelae other than hypopituitarism. After GTR of an infundibular epidermoid cyst, based on values of serum procalcitonin, post-eTSS MM can be distinguished from infection and can be treated with symptomatic treatments. The postoperative transient nonnephrogenic VARP that differs from usual central diabetes insipidus can react with sublingual desmopressin after alleviation of PPP in the clinical course of post-eTSS MM. An infundibular epidermoid cyst should be sufficiently resected in one sitting to minimize comorbidities, its recurrence, or postoperative MM to the utmost [1)].

A 53-year-old man presented with 6 months history of weight loss associated with nausea, fatigue, dizziness and headache. On arrival he was in adrenal crisis. Biochemistry revealed anterior hypopituitarism with low cortisol, thyroxine, testosterone and a slightly raised prolactin. He was commenced on steroids, thyroxine and testosterone. MRI pituitary gland was reported to have a 9.4 mm microadenoma. Cabergoline was started for a possible microprolactinoma. Follow-up MRI showed increase in the size of complex cystic lesion causing chiasmal compression raising a possibility of craniopharyngioma. Visual fields assessment was normal. In view of the rapid enlargement, to protect vision and obtain a tissue diagnosis he underwent endoscopic trans-sphenoidal surgery. A cystic lesion was noted intraoperatively originating from pituitary stalk with intrasellar and suprasellar extension. It was filled with white caseous material and fluid. Histology revealed epidermoid cyst. His headache resolved postoperatively [2)].

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Yoneoka Y, Seki Y, Akiyama K, Sakurai Y, Ohara N, Hasegawa G. Prolonged Postoperative Pyrexia and Transient Nonnephrogenic Vasopressin-Analogue-Resistant Polyuria following Endoscopic Transsphenoidal Resection of an Infundibular Epidermoid Cyst. Case Rep Neurol Med. 2021 Apr 13;2021:6690372. doi: 10.1155/2021/6690372. PMID: 33936824; PMCID: PMC8060105.
2)
Ahmad S, Surya A, Hayhurst C, Davies S. Pituitary infundibular epidermoid cyst: a rare cause of hypopituitarism. BMJ Case Rep. 2021 Mar 24;14(3):e241065. doi: 10.1136/bcr-2020-241065. PMID: 33762289.