

Suprasellar arachnoid cyst postoperative complication

In some cases, variable [postoperative complications](#) can be caused by the operative techniques in [suprasellar arachnoid cyst](#).

Endocrine dysfunction

The endocrine dysfunction can occur in about 40% of cases that were managed surgically. This complication was reported to be caused by intraoperative injury of hypothalamus, pituitary apparatus and peripituitary vasculature ¹⁾.

Neurosurgeons should try to minimize the destruction of the cystic wall vasculature and not to make the fenestration at a site that contains many vascular striae ²⁾.

Hyponatremia

Hyponatremia as a result of cerebral salt wasting ³⁾.

A transient endocrine complication, which is electrolyte imbalance such as [hyponatremia](#), can resolve in several days. This transient complication can be caused by intraoperative irrigation with normal saline and transient stretch of the [hypothalamus](#) by tugging at the cyst during fenestration, without significant structural injury ^{4) 5)}.

Extrapontine myelinolysis of osmotic demyelination syndrome ⁶⁾.

CSF Leak ⁷⁾.

Infection

A 49-year-old man presented with episodes of altered mental status. He had two surgeries for a recurrent suprasellar arachnoid cyst. The second surgery was complicated by a persistent cerebrospinal fluid (CSF) leak that required two repairs following which he developed panhypopituitarism and central diabetes insipidus. Twelve months after his last surgery he was diagnosed with aseptic meningitis. This was followed by recurrent hospitalisations for severe hyponatremia blamed on poor medication compliance. He was subsequently hospitalised for the evaluation of a febrile illness. Brain MRI showed ventriculitis and enhancement of the sella. Exploratory surgery revealed a purulent collection in the sella and a mucosal graft which had been used to repair the CSF leak. After drainage of pus and replacement of the graft he recovered completely but requiring life-long hormonal replacement. CSF leak ⁸⁾

Spontaneous Intracystic Hemorrhage ⁹⁾.

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Pierre-kahn A, Capelle L, Brauner R, Sainte-Rose C, Renier D, Rappaport R, et al. Presentation and management of suprasellar arachnoid cysts. Review of 20 cases. J Neurosurg. 1990;73:355-359.

²⁾

Choi KY, Jung S, Kang SS, Kim IY, Jung TY, Jang WY. Technical considerations to prevent postoperative

endocrine dysfunction after the fenestration of suprasellar arachnoid cyst. J Korean Neurosurg Soc. 2011 May;49(5):262-6. doi: 10.3340/jkns.2011.49.5.262. Epub 2011 May 31. PubMed PMID: 21716897; PubMed Central PMCID: PMC3115145.

3)

Isik U, Ozek MM. Endoscopic treatment of in utero diagnosed suprasellar arachnoid cyst and development of salt wasting. Minim Invasive Neurosurg. 2007 Aug;50(4):243-6. PubMed PMID: 17948185.

4)

Isik U, Ozek MM. Endoscopic treatment in utero diagnosed suprasellar arachnoid cyst and development of salt wasting. Minim Invasive Neurosurg. 2007;50:243-246.

5)

Sood S, Schuhmann MU, Cakan N, Ham SD. Endoscopic fenestration and coagulation shrinkage of suprasellar arachnoid cysts. J Neurosurg. 2005;102:127-133.

6)

Zhao P, Zong X, Wang X, Zhang Y. Extrapontine myelinolysis of osmotic demyelination syndrome in a case of postoperative suprasellar arachnoid cyst. Case Rep Med. 2012;2012:679257. doi: 10.1155/2012/679257. Epub 2012 Dec 27. PubMed PMID: 23326275; PubMed Central PMCID: PMC3544276.

7)

Esposito F, Grimod G, Cavallo LM, Lanterna L, Biroli F, Cappabianca P. Collagen-only biomatrix as dural substitute: What happened after a 5-year observational follow-up study. Clin Neurol Neurosurg. 2013 Sep;115(9):1735-7. doi: 10.1016/j.clineuro.2013.03.013. Epub 2013 Apr 23. PubMed PMID: 23622936.

8)

Gonzales M, Marik PE, Khardori RK, O'Brian JT. A pituitary abscess masquerading as recurrent hyponatremia and aseptic meningitis. BMJ Case Rep. 2012 Jun 29;2012. pii: bcr2012006436. doi: 10.1136/bcr-2012-006436. PubMed PMID: 22751424.

9)

Arora R, Puligopu AK, Uppin MS, Purohit AK. Suprasellar Arachnoid Cyst with Spontaneous Intracystic Hemorrhage: A Rare Complication - Role of MR and Illustration of a Case. Pol J Radiol. 2014 Nov 18;79:422-5. doi: 10.12659/PJR.890992. eCollection 2014. PubMed PMID: 25422677; PubMed Central PMCID: PMC4238756.

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