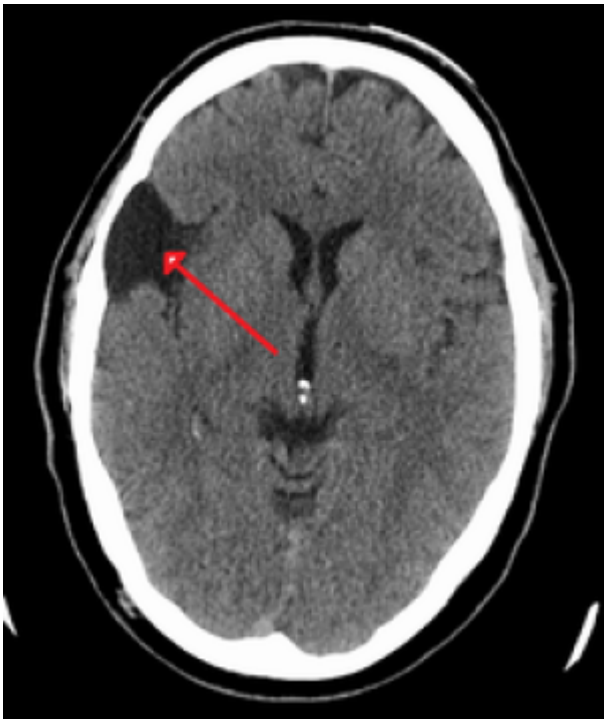
Intracranial arachnoid cyst clinical features



Intracranial arachnoid cysts may present as asymptomatic incidental neuroimaging findings, generally small cysts, or provoking severe headaches, seizures, hydrocephaly, intracranial hypertension, cranial nerves palsies, vertigo, proptosis, hemiparesis, and mental status changes due to mass effect caused by larger cysts [1) 2)].

They may present spontaneous growth, size reduction, or even total disappearance [3)]

Most of the intracranial arachnoid cysts are asymptomatic and are detected as incidental findings on Computed Tomography or Magnetic Resonance Imaging of the head carried out for other reasons.

Those that become symptomatic usually do so in early childhood [4)].

The presentation varies with the location of the cyst, and oftentimes appear mild considering the large size of some.

Typical presentations include:

1. symptoms of intracranial hypertension (elevated ICP): H/A, nausea/vomiting, lethargy

2. seizures

3. sudden deterioration:

a) due to hemorrhage (into a cyst or subdural compartment): middle fossa cysts are notorious for hemorrhage due to tearing of bridging veins. Some sports organizations do not allow participation in

contact sports for these patients

b) due to rupture of the cyst

4. as a focal protrusion of the skull

5. with focal signs/symptoms of a space-occupying lesion

6. incidental finding discovered during evaluation for an unrelated condition

7. suprasellar arachnoid cysts may additionally present with:

a) hydrocephalus (probably due to compression of the third ventricle)

b) endocrine symptoms: occurs in up to 60%. Includes precocious puberty

c) head bobbing (the so-called “bobble-head doll syndrome”): considered suggestive of suprasellar cysts, but occurs in as few as 10%

d) visual impairment.

Cognitive dysfunction

The patients with arachnoid cysts presented with cognitive dysfunction compared to the normal population which improved after surgical decompression. Arachnoid cysts should not be considered asymptomatic unless thoroughly evaluated with clinical and neuropsychological workup [5].

Epilepsy

see Intracranial arachnoid cyst and epilepsy.

Sudden deterioration

Due to hemorrhage into cyst or subdural hematoma.see Subdural hematoma and arachnoid cyst

Due to cyst rupture.

There are multiple case reports of arachnoid cysts becoming symptomatic with hemorrhagic complications following head trauma. In such cases, the bleeding is often confined to the side ipsilateral to the arachnoid cyst. Occurrence of contralateral subdural hematomas in patients with temporal fossa arachnoid cysts has rarely been observed and is reported less frequently in the medical literature [6].

Usually they remain stable in size and are asymptomatic, however, a few cysts contain remnants of the choroid plexus or arachnoid granulations leading to secretion of CSF resulting in an increase in size with time. These cases may present with features of compression of adjacent structures (Kallmann syndrome, precocious puberty, bitemporal hemianopia in suprasellar lesions, cranial nerve palsies etc.) and/or raised intracranial pressure due to their large size or hemorrhage. Spontaneous hemorrhage is supposed to be due to a minor trauma with rupture of intracystic or bridging vessels [7] [8].

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