

# Arachnoid cysts

An **arachnoid cyst** is a well-defined **cystic, congenital collection of cerebrospinal fluid** (it arises on the basis of doubling of the arachnoid layer). It is often an accidental finding on a CT scan or MRI scan. It is important for a differential diagnosis of (tumors).<sup>[1] [2]</sup>

## Symptoms and auxiliary tests

In the CT image (resp MRI, possibly with the intrathecal application of contrast) arachnoid cyst has a density, resp. cerebrospinal fluid intensity (hypodense). Most common locations:

- in the middle pit
- on convexity
- in the posterior cranial pit (cisterna magna)
- in the cerebellopontine angle
- at the chiasm level
- in the chamber

Expansive behaviour depends on its communication with the surrounding cerebrospinal fluid spaces. The problem occurs if the communication has a valve character (intracranial hypertension syndrome) occurs.

Arachnoid cysts can be asymptomatic, otherwise, they often cause symptoms in early childhood (increased intracranial pressure, epileptic seizures, gradually developing focal neurological symptoms, sudden worsening of the condition during cyst bleeding).<sup>[1][2]</sup>

### CT of arachnoid cysts of the temporal lobe



Sagittal plane



Frontal plane



Transverse plane

## Treatment

An incidental finding and an asymptomatic cyst are not treated or followed up. For expansive behaviour and clinical manifestations, surgery is chosen (shunt surrounding cerebrospinal fluid, ie microsurgical / endoscopic fenestration of the cyst into the normal cerebrospinal fluid). A shunt formed between the arachnoid cyst (most often in the case of the sulcus lateralis cyst) and the peritoneal cavity, the so-called **cystoperitoneal shunt**, is also possible. Marsupialization (removal of the cyst with the capsule) is rarely performed.<sup>[1][2]</sup>

## Links

### Related articles

- The ventricular system of the brain
- Pseudotumors

### References

1. SEIDL, Zdeněk – OBENBERGER, Jiří. *Neurologie pro studium i praxi*. 1. edition. Praha : Grada Publishing, 2004. ISBN 80-247-0623-7.

2. SAMEŠ, M, et al. *Neurochirurgie*. 1. edition. Praha : Jessenius Maxdorf, 2005. ISBN 80-7345-072-0.