Arachnoid Cyst Management

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Objectives:

You are most likely to develop an arachnoid cyst in your head but it may also form around your spinal cord. It is called an arachnoid cyst because it exists between your brain or spinal column and your arachnoid membrane in the space between it. This is one of three layers of the membranes that surround your brain and spine. If you develop an arachnoid cyst in your head it will expand between your brain and skulls or bags, called ventricles around your neck.

Cerebrospinal fluid (CSF) is loaded to arachnoid cysts. CSF is a calming fluid that exists naturally and covers the brain and spinal cord. The arachnoid cyst walls don't allow this fluid to drain into your CSF system, allowing it to build up within.

Methodology:

In this study, we analyze patients with brain arachnoid cyst (spinal arachnoid cyst removed in this study) who have been attending neurochirurgical clinic since 2014 up to now, regardless of the cause of transfer due to either symptoms or incidental findings.

We reviewed 365 patients files and divided them as the following asymptomatic according to their symptoms; Headache, dizziness, nausea, vomiting, lethargy, headaches, vision, seeing or walking problems, problems with balance, developmental delay, dementia.

They then monitor the patients who are treated medically in three groups

- Assurance and image monitoring
- Symptom treatment (headache, and seizures)
- Chirurgical (endoscopic fenestration or shunting)

If your spinal column contains a symptomatic cyst, your doctor may recommend surgery to completely remove it. When this is not possible, they may be draining it with fenestration or shunting.

Performance and Debate:

After gathering data and evaluating the results, we found that after falling down, 153 patients visited the neurosurgery clinic as incidental findings and got follow-up pictures and assurance for the patients and family there. 36 Patients had symptoms of a deferent form of seizure and had been referred to an antiepileptic drug neurologist. 14 Patients had signs of pain, and Papilledema: Cysto-peritoneal shunt treated.

Two patients had arachnoid cyst hemorrhage and were surgically treated to drain the blood.

Most of the patient was symptomatically treated. When you have an arachnoid cyst that causes pain in your brain, the doctor will typically dry it out. One of two procedures they can recommend. We would make a small incision near the cyst in the first operation, then insert an endoscope at the end with a small camera. They'll use this endoscope to open the cyst gently, enabling the fluid within to flow through your CSF system, where

it will be circulated via your body. This technique is known as fenestration. Your doctor will insert a shunt inside the cyst in the second procedure. It helps the fluid inside to drain to another part of your body, including your abdomen.

If you have an asymptomatic cyst, you possibly will live a normal life, even without medication. For a general rule, your doctor should advise you to schedule routine check-ups and track improvements.

Conclusion:

Your doctor will insert a shunt inside the cyst in the second procedure. It helps the fluid inside to drain to another part of your body, including your abdomen. If you have an asymptomatic cyst, you possibly will live a normal life, even without medication. For a general rule, your doctor should advise you to schedule routine check-ups and track improvements.

When you have an arachnoid cyst that causes no symptoms or other complications, your doctor may recommend that you keep it untreated. Over time they will likely track the cyst and watch for future growth or other changes. We can prescribe treatment if it starts causing problems

Symptomatic management of arachnoid cyst is the corner stone particularly for headache and seizures. When you have a symptomatic cyst, the symptoms should be treated by either draining or removing it. An untreated growing arachnoid cyst may in rare cases cause permanent neurological damage.

Arachnoid cysts may be categorized as either primary or secondary developmental cysts. Primary cysts emerge from the splitting in utero of the arachnoid membranes, resulting in anomalous collections of cerebrospinal fluid (CSF) form. Secondary cysts are less common, often following trauma, procedure, infection, or intracranial hemorrhage. Arachnoid cysts account for 1 per cent of All lesions intracranial, occupying space. The prevalence in adults is about 1.4% with female predominance, while the prevalence in children is about 2.6%.

The arachnoid cysts signs and symptoms differ depending on their size and location. Small cysts are typically symptomatic, and need examination and monitoring. Larger cysts may however have a major impact on neurovascular structures that result in neurological symptoms. Headaches are the most common symptom, reflecting a 66 per cent share. Many signs include dizziness, nausea, vomiting, mood deterioration, changes in mental state, ataxia, hallucinations and loss of hearing.

Although the position of arachnoid cysts varies, most are supratentorial and located in the middle fossa. The remainder will occur in the angle of cerebellopontine, cisterns suprasellar and quadrigeminal, cerebral convexities, and cisterna magna.

Given the risk of large arachnoid cysts compressing the neurovascular structures, a surgical approach is preferable to passive observation, as is the case smaller cysts done.

There has been no consensus on the single best management strategy

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with respect to large arachnoid cysts. Microsurgical fenestration through craniotomy, neuroendoscopic fenestration, and cystoperitoneal shunting are the most common methods used for the treatment of arachnoid cysts.

It has been shown that intracranial arachnoid cysts produce cognitive dysfunction over a variety of basic mental functions, and after surgical cyst decompression these functions normalise.

When the arachnoid cysts continue to accumulate cerebrospinal fluid, they can expand to a large size. In more serious cases, the size of the cysts can cause the head to change shape or may displace the lobes around the brain.

The protective lining that envelops the central nervous system (the meninges) contains three distinct membranes. Starting with the most visible, these layers are the:

- Mater Dura
- Mater arachnoide
- Pia madre

Common symptoms of arachnoid cysts include:

- Headaches
- Nausea
- Vomiting
- Balance issues

Cerebrospinal fluid is predominantly found between arachnoid layer and pia mater. Once the arachnoid membrane layers break apart and are filled with the cerebrum, an arachnoid cyst grows cerebrospinal fluid.