

Posterior Fossa Arachnoid Cyst Presenting as Negative Symptoms of Psychosis

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Arachnoid cysts are benign congenital malformations, making up 1% among all the space occupying lesions (SOL).^[1,2] Sylvain fissure is the most common place (50%) but it can happen in any place.^[2] Patients might complain of a headache, ataxia, seizures, dizziness, and visual changes etc. The common psychiatric symptoms are psychosis, alexithymia, attention deficit and hyperactivity disorder, paranoid delusions, obsessive religiosity, sense of guilt or ruin, hallucinations, depression, insomnia, irritability and cognitive alterations etc.^[3,4] Recently, we presented a case of an arachnoid cyst in the right middle cranial fossa compressing temporal lobe presenting as the positive symptoms of psychosis.^[1] Here, we are presenting a case of posterior fossa arachnoid cyst which presented as severe negative symptoms.

Mr. X, a 28 year old male working as a farmer, presented to the psychiatry outpatient department with severe pain over the back and posterior part of the head for 5 months. Upon detailed history, a bystander noticed that he had reduced interaction with his family and friends for the last 1.5 years. He was not at all motivated to do any work for 6 months while often maintaining the same posture for hours for the last 2 months. The patient did not perceive it as a problem due to severe apathy during the examination of affect. He also complained of increased sound and pain sensitivity. He was found to be self-absorbed and smiling on very few occasions. Suspecting atypical symptoms, he was sent for neuroimaging (MRI brain). To our surprise, he was found to have a single extra-axial T1 hypo/T2 hyperintense lesion (2*4.5*2.5 cm) leaning on the left cerebellar hemisphere with a displacement of straight sinus right laterally. It was diagnosed as a posterior fossa arachnoid cyst causing a mild mass effect. The patient was referred to a neurosurgeon and surgical

intervention was planned if he developed pressure symptoms in the future.

Mood symptoms, schizophrenia-like psychosis or amnesic symptoms are recorded as being associated with an arachnoid cyst.^[4] Amidst controversy of a causative factor or an innocent bystander, it was noted that psychosis remitted soon after resection in many case reports^[1,5]. It points towards the causative factor as per ICD-10 organic psychosis guidelines. There was no memory deficit, disinhibition, movement disorder or localizing sign to suspect organicity in the patient. Here the only atypical symptoms to suspect an organic cause were an occipital headache and it was highly possible that it would be missed. Negative symptoms as seen in this presentation are never mentioned in the literature. The negative symptoms were characteristic of psychosis as the patient did not express low mood but had restricted affect. In our case, negative symptoms could be due to cerebellar involvement which is found to cause cognitive deficit, disorganized speech, abnormal or catatonic behavior, and negative symptoms such as avolition, flat affect, and anhedonia in schizophrenia.^[6]

Arachnoid cyst with psychosis can be left untouched or resected as per the pressure symptoms.^[1] Often risperidone was used to treat psychotic symptoms but its efficacy for negative symptoms is questionable. So, an arachnoid cyst can show a varied presentation and should be strongly suspected in the case of atypical symptoms.

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Notice: Shanghai Archives of Psychiatry soon to be renamed General Psychiatry

Shanghai Mental Health Center will publish its last issue of the journal *Shanghai Archives of Psychiatry*, 2018 volume 30 issue 3, on 30th June 2018. The postal code is 4-798. The journal will be renamed *General Psychiatry* and presented to the readers as issue 4 on 30th August 2018.

Changing the name of the journal is a magnificent make-over. We aim to publish a high quality and international journal by cooperating with the BMJ publishing group. The mission of our journal will not change, however the new content and research will be much more innovative and comprehensive. This journal will continue to spotlight important academic exchanges between China and the rest of the world that promote the international development of mental health research.

General Psychiatry Editorial Department
