Huge Arachnoid Cyst Presenting as Cough Headache

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A 42-year-old man presented to our clinic with episodic diffuse thunderclap headache occurring over the past 5 months. His headache, which lasted from hours to one day, was always exacerbated by coughing and exertion. Neurologic examination was unremarkable. Brain magnetic resonance imaging with gadolinium enhanced showed a huge cystic lesion in right occipital area with uncal and transtentorial herniation. After surgery, he was free from headache.

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Cough headache is an uncommon headache. It usually affects patients over the age of 40\textsuperscript{(1,2)}. Symptomatic cough headache are found in about 40\% of the cases\textsuperscript{(2)}. They tend to have additional headache triggers, more associated symptoms, stronger pain intensity, and more diverse headache durations and locations. According to a report of nine symptomatic cough headache patients by Chen et al.\textsuperscript{(3)}, the headache usually are bilateral and the headache duration ranged from 10 seconds to 30 minutes. Symptomatic cough headache is mostly attributable to Chiari malformation (65\%), following posterior fossa lesions (15\%), and vertebralbasilar disease. Rarely, subdural hematoma, brain metastasis or spontaneous intracranial hypotension had been reported\textsuperscript{(1,2)}. Thus, neuroimaging is highly recommended when approaching patients with newly-onset of cough headache.

The pathophysiology of primary cough headache remained not well understood. It seems associated with an increased intra-thoracic and intra-abdominal pressure subsequently resulting in an increase in the central venous pressure. The other hypothesis about cough headache were also proposed, including transverse or jugular vein stenosis\textsuperscript{(4)}, lower threshold for pain tolerance\textsuperscript{(5)}, systemic infection altering the vascular tone\textsuperscript{(6)}, and more crowded posterior cranial fossa with relative obstruction of CSF flow\textsuperscript{(7)}.

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**REFERENCES**