Cluster Headache and Mucocele: A First Case Report

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Abstract

Cluster headache (CH) is excruciating attack of pain in one side of the head, often felt around the eye. It occurs 1 in 500-1000 people, is more common in men and tend to develop in people over the age of 20.

Keywords: Cluster headache; Mucocele; Maxillaris sinus

Introduction

Cluster headache (CH) is excruciating attack of pain in one side of the head, often felt around the eye. It occurs 1 in 500-1000 people, is more common in men and tend to develop in people over the age of 20. It occurs in recurrent “bouts” over several weeks followed by headache-free periods that often last for months or years. It is not clear exactly what causes CH but some cases understanding a genetic predisposition. We report a 44-year-old man who presented symptomatic CH caused by a mucocele of the maxillaris sinus.

Case Report

A 44-year-old previously healthy male was admitted to our clinic with sudden sever pain, described as a sharp, burning sensation on right side of the head. The pain was typically felt around the eye, temple and face with associated symptoms such as smaller pupil in right eye, runny nostril in the same side, and sweaty face. Patient felt restless and agitated during the attack because the pain was very intense. Other two attacks were reported and lasted around 1 hour. Negative family history for cluster headache and/or migraine. CT brain, CT Angiography and ophthalmology examination were normal. In our department, he started oxygen therapy through a mask that relieved the pain within around 30 minutes and also treatment with verapamil 160 mg a day. After two days without symptoms he reported another attack with the same features. We decided to take MRI scan of the brain that showed hypointense lesion with a ring calcified on T1-weighted of 2.5 cm in diameter, and low enhancement on T2-weighted inside the maxillaris sinus. Surgical removal of the mucocele led to complete relief of cluster headache within 3 weeks.

Discussion

Mucocele is a benign, cystic lesion lined by respiratory epithelium. Headache induced by the presence of mucocele is directly related to mechanical pressure on the sinus anatomy, such as expansion, infection and erosion of the sinus wall [1,2]. Furthermore, headache is associated with inflammatory cytokines, such as IL-1, IL-6, TNF alpha, and PGE2 [3]. Since the patient had typical symptoms of CH without others symptoms associated and medications were effective, the mucocele was not recognized. Only after an MRI, was correct diagnosis made. We conclude that the association between headache and mucocele of maxillaris sinus is extremely rare, but despite the effectiveness of medications, an MRI could be performed according clinical judgement to exclude symptomatic CH.

References