# **Cluster Headache That Mimicking Sinus Headache**

### Sinüs Baş Ağrısını Taklit Eden Küme Baş Ağrısı Olgusu

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#### ABSTRACT

Cluster headache, a disease more rare than migraine and tension, is more common in men and onset usually between the ages of 20-40. The pain of a cluster headache commences quickly without warning and begins around periorbital, temporal or maxillary regions, reaches a crescendo within minutes and lasts in 15 minutes to 2 hours. Attacks are typically accompanied by ipsilateral lacrimation, redness of eyes, eyelids fall and nasal congestion. Primary headache syndromes and considerable similarities in their clinical presentations, cluster headache may be misdiagnosed as sinus disease and vice versa. We report here case a new diagnosed patient with cluster headache, applied our clinic because of existing headache for 16 years who had been followed up with diagnose of sinusitis.

## ÖZET

Küme baş ağrısı, genellikle 20-40 yaşlarında başlayan, erkeklerde daha sık gözlenen ve migren ve gerilim tipi baş ağrılarından daha nadir görülen bir hastalıktır. Ağrı herhangi bir uyarı vermeden temporal ya da maksiler bölgeden başlar ve 15 ile 180 dakika arasında devam eder. Ataklara tipik olarak ağrı ile aynı tarafta olan gözde kızarıklık, göz kapağında düşme ve nazal konjesyon eşlik eder. Primer baş ağrıları ve sinüzit klinik özellikleri nedeniyle karıştırılabilirler. Biz burada 16 yıl boyunca sinüzit olarak takip edilmiş ve yeni tanı almış küme tipi baş ağrılı olguyu sunduk.

Keywords: Cluster headache, sinusitis

Anahtar Kelimeler: Küme tipi baş ağrısı, sinüzit

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### INTRODUCTION

Cluster headache is a comparatively rare and the prevalence is 69 cases per 100.000 people. Although headaches usually start between the ages of 20 and 50 years, the syndrome may begin as early as the first decade or as late as the eight. It is characterized by frequent episodes of very intense, unilateral pain in the orbital or temporal region (1). The pain of a cluster headache begins quickly without warning and periorbital or, less commonly, temporal or maxillary regions, reaches a crescendo within minutes and lasts in 15 minutes to 180 hours. Attacks are typically accompanied by ipsilateral lacrimation, reddening of the eye, rhinorrhea, nasal congestion eyelids fall, and forehead - facial sweating (2,3).

Cluster headache circumscript and recognizable criteria are available; however the diagnosis is often missed or delayed<sup>4</sup>. We are presenting a new diagnosed patient with cluster headache, applied our clinic because of existing headache for 16 years who had been followed up with a diagnose of sinusitis.

## CASE

41-year-old man admitted neurology clinic because of severe headache. His complaints began 16 years ago. Patient described that he was restless during his one sided excruciating pain. He applied to otorhinolaryngology clinic for this pain 16 years ago and diagnosed with sinusitis and surgical treatment was carried out. Patient had no headaches for four years after this operation. Four years later patient applied the same clinic because of his identical headache and he was operated for sinusitis one more time. He had a four years' time period without any pain. Four years later pain appeared again and third operation was carried out for sinusitis in the same clinic by the same otorhinolaryngology. After a painless four years' time period patient had the same headache and was operated

fourth time for sinusitis that was thought as the cause of this pain. But this time patient's headache continued and didn't have a painless time period. Patient was suggested for applying neurology clinic because of his ongoing headache despite the operations. Patient was admitted to neurology clinic. His headache was existing for 20 days, three or four times a day, beginning after a few hours falling asleep, awakening and placed on one side. He is restless during pain and that pain not disappear with conventional analgesics. On neurologic examination there was no pathological finding. His routine blood chemistries and neuroimaging were normal and no systemic and neurological disease. He was evaluated with this signs and symptoms and diagnosed with cluster headache. Patient was suggested to apply to emergency department during his pain. He was admitted to emergency department with headache and his neurologic examination were slight ptosis. His pain improved dramatically with  $O_2 \ 8 \ L / \min$  flow rate. The fact that improving with  $O_2$  treatment during either headaches supported our diagnose. A single dose of 40 mg of prednisone were given as a prophylactic therapy daily for 5 days and severity and frequency of pain was reduced with this treatment. In long-term prophylaxis verapamil 240 mg / day was given. With these therapies the patient had no attacks of pain throughout 1.5 years.

#### DISCUSSION

Episodic form of cluster type headaches are more frequent than chronic form. It takes 6-12 weeks averagely for the cluster period followed by remission period that may go on months or even years. In our case the episodic cluster headaches occur once in every four years. Patient had painless times for four years, after being operated because of sinusitis. This periodicity supports the episodic form. Episodic form may transform chronic form in some cases in years. In our case the lack of improvement after fourth operation may be considered as a transformation to chronic form.

#### 42 **KŰTFD**

In a clinic study, nearly one-fourth of patients seen with cluster headache had been treated by an ear, nose, and throat surgeon (5). Although the pathogenesis of cluster headache is still uncertain, the mechanism that parasympathetic paroxysmal discharge through the superficial nerve and sphenopalatine ganglion explains the physiology (6). This well-described physiology explains why so many headaches are misdiagnosed and provides a logical basis on which to re-diagnose and correctly manage these patients. In our case, it is appropriate to explain patient's painless time periods after operations by this mechanism. In the general population of patients who believe they have sinus headaches, more than 86% have migraine and 56% have nasal congestion, which likely leads to this misdiagnosis (7). Although cluster headaches are easily recognized and known with its typical symptoms another clinical feature of pain is an important criteria for cluster headache. During attacks, patients move unceasingly, pacing, rocking, or even rubbing their head for relief. In our case addition of patients' description 'being restless during his pain' and slight ptosis addition to other symptoms helped to diagnose of cluster headache.

Chronic rhinosinusitis and primary headache syndromes are common disease entities and headache and facial pain are common reasons for referral to otolaryngology units. Because of an association of nasal symptoms with primary headache syndromes and considerable similarities in their clinical presentations, primary headache syndromes may be misdiagnosed as sinus disease and vice versa (8).

In conclusion; many patients were first seen by a dentist or otolaryngologist specialist for their cluster headache episodes, so more attention should be paid to educate first line physicians to recognise cluster headache to improve the diagnostic process and so to expose patients to earlier and better treatment of cluster headache. The clinicians must be awake about differential diagnosis of headaches before planning an operation.

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