

# Does Ingestion of Mad Honey Cause Headache Like Hypnic Type?: Case Report

## Acı Bal Yemek Hipnik Tip Benzeri Baş Ağrısına Neden Olur mu?

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**ABSTRACT** Mad honey intoxication is a rare food poisoning which has been known since a long time. Gastrointestinal, cardiovascular, pulmonary and neurological symptoms are well known symptoms in mad-honey intoxication. Hypnic headache is a rare form of primary headaches. It is usually seen in older people and occurs during night sleeping. Its pathogenesis is not exactly known. Herein, we present a case of mad-honey intoxication mimicking hypnic headache due to ingestion of mad-honey, which has been commonly used for healing among people living Black Sea region. The patient was admitted to our clinic with throbbing headache during night sleeping. It was diagnosed with hypnic headache, based on her anamnesis, neurological examination, and laboratory findings. The patient implied that her headache had occurred whenever she ingested some amount of mad-honey before sleeping, disappeared with its cessation and reoccurred with its ingestion, so we considered that headache was induced by intake of mad-honey. In this report, we aimed to highlight the importance of history taking about traditional foods triggering headache during consultation with patient.

**Key Words:** Headache disorders, primary; grayanotoxin I; honey

**ÖZET** Acı bal zehirlenmesi uzun zamandan beri bilinen nadir bir besin intoksikasyonudur. Gastrointestinal, kardiyovasküler, pulmoner ve nörolojik semptomlar acı bal intoksikasyonunda iyi bilinen semptomlardır. Hipnik baş ağrısı birincil baş ağrılarından nadir görülen bir formudur. Genellikle yaşlılarda, gece uykusu esnasında ortaya çıkmaktadır. Patogenezi tam olarak bilinmemektedir. Doğu Karadeniz bölgesinde, halk arasında yaygın olarak şifa amaçlı acı bal kullanımı ile ilişkilendirdiğimiz hipnik baş ağrısını taklit eden olgu bu sunuda değerlendirilecektir. Gece uykudan kaldıran baş ağrısı şikayetiyle polikliniğimize gelen hasta; anamnez, nörolojik muayene, laboratuvar bulgularına göre hipnik baş ağrısı olarak değerlendirildi. Ancak baş ağrılarından özellikle uyumadan az önce acı bal yediği geceler olduğunu, acı balı yemediği geceler baş ağrısının olmadığını, acı balı tekrar yediğinde ağrıların ortaya çıkması üzerine baş ağrılarından acı bala bağlı olduğunu düşündük. Bu olgu sunumunda, hasta görüşmesi sırasında baş ağrısını tetikleyebilecek geleneksel yiyecekler ile ilgili tıbbi hikaye alınımının önemini vurgulamayı amaçladık.

**Anahtar Kelimeler:** Baş ağrısı bozuklukları, birincil; grayanotoksin I; bal

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**M**ad-honey intoxication is rare food poisoning which has been known from ancient times in the Eastern Black Sea Region of Turkey.<sup>1</sup> It has been used for gastrointestinal disorders, hypertension, cardiac diseases and impotence as alternative treatment in this area.

Gastrointestinal, cardiovascular, respiratory, and neurological symptoms are well known symptoms after ingesting mad-honey.<sup>2</sup> Grayanotoxin in mad-honey can cause discrete symptoms which are not expected due to its characteristics.<sup>1</sup> Hypnic headache (HH) is rare form of primary headaches seen usually in older people and during night sleeping. Its pathogenesis is not exactly known, but it is considered to be circadian rhythm disorder because of its relation with sleeping. Secondary hypnic headache is rarely seen.<sup>3</sup> HH was firstly described by Raskin in 1988, as headache lasting at the most one hour, awaking from sleeping, and throbbing characteristic.<sup>4</sup>

## CASE REPORT

Sixty five years-old female patient with wake-up at the same time due to headache occurring during almost every night was admitted to our neurological outpatient clinic. She described her symptom which was aching in entire head with characteristic of pulsating in two-third of month for last 3 months. Aching was lasting 2-3 hours and waked her up from sleeping. Sometimes it relieved with analgesics such as non-steroidal anti-inflammatory drugs, and disappeared after 2-3 hours. Autonomic symptoms such as nausea, vomiting, photo- and audio-sensitivity were not accompanied with her headache. Some laboratory parameters such as complete blood count, sedimentation, and biochemical analysis were in normal range. Other neurological and systematic physical examinations were normal. Cranial magnetic resonance imaging revealed normal findings. She had no co-morbid diseases of previous hypertension, diabetes mellitus and other chronic diseases. She signified that she had ingested a teaspoon of mad-honey before getting bed for healing aim, and she had not suffered from headache during nights when she had not taken mad-honey. Therefore, we advised her to not continue to take mad-honey. In subsequent days, her headache was relieved, but she suffered from it whenever she started to take mad-honey. Here, we presented an interesting case of headache mimicking hypnic type due to mad-honey ingestion.

## DISCUSSION

Hypnic headache is a rare sleep-associated primary headache disorder, usually affecting aged people, first described by Raskin in 1988. HH was described by international Headache Society as group of other primary headache. Accordingly, the headache attacks, single or multiple in one night, occur exclusively during sleep and tend to present at a consistent time each night, sometimes during a dream. It is characterized by strictly sleep-related headache attacks usually awake at the same time at night with dull bilateral head pain and not accompanied by autonomic signs, lasting longer than 15 minutes and seen at least 15 times a month over 50 years-old people and awaking from night sleep.<sup>5,6</sup> HH frequency was reported in low proportions (0.07-0.3%) in headache outpatient clinic as seen low in general population. The most characteristic of HH is to occur almost at the same after falling in sleep. Therefore, it was called as "alarm clock headache".<sup>7,8</sup> Its pathogenesis was not exactly clarified, but it was considered as circadian rhythm disorder due to its relation with sleeping. In literature, HH due to secondary reason was rarely reported. There was a case report of due posterior fossa meningioma presenting HH.<sup>9</sup>

In our case, clinical presentation met HH criteria. Any rise in arterial blood pressure monitoring during night period was not reported. In clinical detail, any signs of obstructive apnea syndrome were not detected. Therefore, we diagnosed as HH. Our patient signified that her headache occurred after she started taking mad-honey. Mad-honey is a honey kind commonly used in the Eastren Black Sea. Therefore, we considered mad-honey induced-HH, and advised discontinuation of mad-honey ingestion. Hereafter, similar headache was not described by our patient.

Grayanotoxin responsible for many side affects is a toxin found in bitter honey or mad honey produced by honey-bee from rhododendron plants species.<sup>10</sup> Its toxicity is dose dependent and it may not cause side effect in every individual. Bradycardia and hypotension are the most common symptoms. Those symptoms are usually developed 60-90

minutes later after taking mad-honey.<sup>11</sup> In our case, headache was also seen 2-3 hours after mad-honey intake. In addition, no headache occurred when she has not taken mad-honey. It was convenient with occurrence of symptoms due to mad-honey.

In conclusion, we emphasize that the physicians should take medical history about traditional foods while asking HH and secondary reasons should be considered and ruled out while approaching to diagnose HH.

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