Hypnic headache associated with medication overuse: case report

Betül Baykan, Mustafa Ertaş

SUMMARY

We have recently evaluated a 54-year-old woman who had migraine without aura in her history but presenting with a typical hypnic headache (HH) which is presumably not a primary headache but associated with an ergotamine overuse headache. Her HH was relieved with a washout protocol which includes 75 mg amitriptyline daily with the addition of metoclopramide and encouraging her not to use any analgesics. Our aim was to report this unique patient to emphasize this rare association and to discuss the possible pathophysiological implications for both of these entities.

Key words: *hypnic headache, medication overuse.*

ÖZET

Yakın zamanda değerlendirdiğimiz 54 yaşında kadın, hikayesinde aurasız migren başağrısı dışında tipik hipnik başağrısı (HH) mevcut. Büyük ihtimalle primer başağrısı olmayan ergotamin aşırı kullanımı ile ilişkili başağrısı vardı. Hasta, hiçbir analjezik kullanmamaya cesaretlendirilerek ve metoklopramide günlük 75 mgr amitriptilin eklenerek oluşturulan washout protokolü ile rahatlatıldı. Amacımız tek hastada bu nadir ilişkiyi ve olası patofizyolojik etkileri vurgulamaktır.

Anahtar Kelimeler: Hipnik başağrısı, ilaç aşırı kullanımı.

İ.Ü. İstanbul Tıp Fakültesi Nöroloji Anabilim Dalı

Başvuru Adresi:
Prof. Dr. Betül Baykan
Millet Cad 34390 İstanbul - Türkiye
e-posta: baykanb@istanbul.edu.tr
Tel.: 0.212 414 20 00-32598

Correspondence to:
Prof. Dr. Betül Baykan, Department of Neurology, Headache Unit, Istanbul Faculty of Medicine, Istanbul University, Istanbul, Turkey
Millet Cad. Istanbul, 34390, Turkey
Email: baykanb@istanbul.edu.tr
Phone: +90 (212) 414 2000-32598

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Abstract:
We have recently evaluated a 54-year-old woman who had migraine without aura in her history but presenting with a typical hypnic headache (HH) which is presumably not a primary headache but associated with an ergotamine overuse headache. Her HH was relieved with a washout protocol which includes 75 mg amitriptyline daily with the addition of metoclopramide and encouraging her not to use any analgesics. Our aim was to report this unique patient to emphasize this rare association and to discuss the possible pathophysiological implications for both of these entities.

Introduction:
Hypnic headache (HH) is a rare but distinct headache disorder, affecting the elderly population1. It has recently been included in the International Headache Society classification under the rubric of "other primary headaches" 2 and reviews indicated that it is essentially a primary headache disorder3. However, there are a few case reports with secondary HH 4,5.

Medication-overuse headache (MOH) is an intriguing interaction between the excessive use of an analgesic drug and a susceptible patient. The prevalence of MOH is approximately 2% in our population6. There are no differentiating clinical features of MOH and its headache could have many different clinical presentations mostly resembling migraine without aura or tension type headache (TTH). 7

There is no report of HH-like MOH or HH causing MOH. Our aim was to report a puzzling patient presenting with a typical HH which is associated with an analgesic overuse headache.

Case report:
A 54-year-old woman had admitted with a 2 year history of nightly headaches waking her between 2 a.m. and 3 a.m., lasting about 1.5-2 hours and appearing at least 20 nights monthly. She went to sleep at 12:00 p.m. and after the pain episode she could not sleep further due to the possibility of the recurrence. There were also some stabbing episodes on the parietal and vertex regions in the last months. The headache was very disturbing and always bilateral. It was forcing her to get up and walk around to alleviate it. She denied any autonomic features, except bilateral reddening of the eyes on a few occasions. There was no apnea in her sleep as carefully watched by her husband. Her husband and her daughter could not sleep well due to her suffering and all came from a different city to our headache clinic, because they could not find any relieve.

Her past medical history included a gastric bleeding 31 years ago, and left sided hearing loss since her childhood. She had menopause 7 years ago, a few backache episodes, muscle pain of the extremities and had a history of migraine without aura since the age of 25 years. Her typical migraine attacks were throbbing lasted about 4-10 hours and occurred 2-3 times monthly, right or left-sided with nausea. They were triggered with tiredness and cold. These migraine attacks always have a good response to ibuprofen and alleviated after menopause by means of monthly frequency.

Her systemic examination was entirely normal. She did not report depressive symptoms and was a housewife, pleased with her routine life. Her routine blood chemistry, ECG and chest X ray were normal. She was normotensive and smoked 10 cigarettes/daily since 30 years. Neurological examination showed no abnormalities and cranial MRI was also normal.

She had tried 10 mg amitriptyline prophylaxis and various acute medications such as acetylsalicylic acid, acetaminophen and NSAIDs without any success. She reported that only a combined analgesic consisting of 20 mg meloksamindihydrogencitrat, 0.75 mg ergotamin tartarat, 325 mg acetaminophen and 80 mg caffeine partly alleviated her headaches after a period of 30 minutes and she therefore, uses 30-40 tablets monthly since the last 15 months.

After the diagnosis of severe HH, currently nonproblematic migraine without aura and possible MOH, we started our routine wash-out protocol for MOH consisting of 75 mg amitriptyline daily with the addition of metoclopramide 2-3 times daily when needed for the withdrawal symptoms for the first 3 weeks and encouraged her not to use any analgesics. The response to wash out therapy was very dramatic. After one month, she gratefully reported that her HH was resolved and she could sleep very well for the first time after 2 years. The polysomnographic study, scheduled in the third week of the washout treatment did not catch any headache and excluded obstructi-

ve sleep apnea and other sleep problems. She remained very well in the 6th month of follow-up under the treatment of 50 mg amitriptyline.

On her last follow-up visit after one year, she reported that she was very well until she decided to discontinue amitriptyline due to some gastric side effects. However, her nightly headaches reappeared soon after this withdrawal, without any excessive use of analgesics or any drug for other acute attack, so she continued to use amitriptyline again. With this amitriptyline prophlaxis, she had only her usual migraine attacks per month which could be controlled with ibuprofen.

Discussion:

We think that our patient represent an unusual association of HH and MOH. However, there are some important questions to discuss: Is the observed dramatic effect of the washout therapy due to the effect of amitriptyline which is a reliable agent for headache prophylaxis in general? A recent review investigated more than 70 HH cases and indicated that lithium shows the best efficacy3; but there was no single report of good efficacy of tricyclic antidepressants in HH 3,8. Furthermore, our patient tried low dose of the same drug before washout without any success, so there is no convincing argument about the efficacy of amitriptyline alone in the HH of this patient. We considered a placebo effect of the washout therapy highly unlikely due to its long-lasting effect and the lack of response to other analgesics before the washout9. There is also a possibility of spontaneous remission in some HH cases 3, however in our patient the remission of HH coincided exactly with the initiation of the washout therapy.

The male predominance found in Raskin's series has not been confirmed and to date the reported F/M ratio is 1.7/11, 10. Our present female patient had a severe pain with stabbing quality. Pain is of severe intensity in less then one-third of the reported HH cases and stabbing quality was reported in less than 5%, like in our case. The association of migraine and HH is well-known 3. A recent case report showed that HH could respond to triptans and ergots11, but we think that in our case the response to ergotamine was also the origin of a MOH. This cheap over the counter medication was not her routine analgesic for migraine. Caffeine which is also present in this formulation has a good efficacy in some HH patients for prophylaxis, interestingly 3.

MOH shows a well-known clinical improvement, accompanied by a reduction in the consumption of analgesic drugs, if patients are submitted to detoxification therapy12. Our report showed that HH should be considered in the differential diagnosis of MOH, like the other headache types leading to more than 15 headache days per month.

The pathophysiology of HH is still unclear, some unknown factors trigger brain stem pain pathways in predisposed subjects as an age-related impairment during the REM sleep phase13. However, a frequent onset of headache attacks during REM sleep has also been reported for migraine and cluster headache, making this association between REM sleep and hypnic headache rather nonspecific14. Our patient supported the view that HH is a spectrum disorder with an overlap with other primary headache disorders15. Other headache disorders besides migraine were also observed in the history of some HH patients but there were no reports of the association with MOH3. Acute treatment of HH is usually not necessary, but in some patients like our patient who had severe headache lasting about 2 hours, the lack of diagnosis and appropriate treatment could result in a medication overuse.

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