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Case Report

Bath-Related Headache: Two Cases Report in Brazil - ∂

Jose Hugo Andrade Santos Dantas[1], July Lima Gomes[1], Mariana Leite Pereira[2], Fernando Jaco Silva Moreira[2], Rayssa Fernandes Souza Coelho[2], Raimundo Pereira Silva-Neto[3]*

[1]*Medical students, Integral Differential Faculty, Facid/DeVry, Teresina, Brazil*
[2]*Medical students, State University of Piaui, Teresina, Brazil*
[3]*Neurologist, Federal University of Piaui, Teresina, Brazil*

***Address for Correspondence:** Raimundo Pereira Silva-Neto, Federal University of Piaui, Avenida Sao Sebastiao, 2810, Reis Veloso, Parnaiba, PI 64202-020, Brazil, Tel: + 55 86 3323-5314, E-mail: neurocefaleia@terra.com.br

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ABSTRACT

Background: Bath-related headache (BRH) is a rare headache disorder described initially by Negoro et al. in 2000. It is characterized by developing while the patient is bathing in hot water or immersion in a hot bath.

Cases: We described two cases of Brazilian women with bath-related headache who presented several episodes of intense throbbing headache that developed during a hot shower. Their neurological exams and brain images showed no abnormality. The headache did not recur after the patients avoided bathing in hot water.

Conclusion: Hot bath-related headache is a benign headache unassociated with a structural lesion.

Keywords: Bathing Headache; Hot Bath; Headache; Trigger

INTRODUCTION

Bath-Related Headache (BRH) is a rare headache disorder described initially by Negoro et al. in 2000 [1]. It is characterized by developing while the patient is bathing in hot water or immersion in a hot bath. There is not yet a diagnostic criterion for BRH and it has not been described in the International Classification of Headache Disorders, Third Edition (beta version) (ICHD-3β) [2].

To date, most cases reported (45/48; 93.7%) in the literature have occurred in the Asian population of six countries: China (6 cases) [3], Japan (5 cases) [1, 4, 5], Taiwan (26 cases) [6–8], Turkey (4 cases) [9], India (3 cases) [10] and Korea (1 case) [11]. There is only one case in Europe (Spain) [12], one in Africa [13], and another in South America (Brazil) [14]. In this article, we report two cases of Brazilian women who developed severe headache during a hot bath and to the best of our knowledge, these are the second and third cases reported in South America.

CASE REPORTS

Patient 1

A 63-year-old woman was referred to our Headache Centre because of a severe headache. In the past, she had a history of migraine without aura, but that disappeared after menopause. The current headache appeared suddenly during a hot shower 30 days ago. The headache was so severe that her family brought her to an emergency hospital. It was an intense throbbing headache, located bilaterally in the front temporal region and lasted about 20 minutes. She had no nausea, vomiting, photophobia, nor phonophobia. The patient reported that she always took a bath with water at normal temperature, but had bought an electric shower and decided to take a shower with hot water. One week after the first headache attack, she experienced taking a hot shower again and immediately after the hot water fell on her head, she felt intense headache that lasted for about 30 minutes. Two weeks after the second episode, she again bathed with hot water and presented headache similar to the previous attacks, but with a duration of 40 minutes. No precipitating factors other than bathing were found.Non-steroidal anti-inflammatories and / or analgesics administered during her visit to the emergency unit were not effective. So after the third episode she decided to consult a neurologist. She said she had hypothyroidism and used levotiroxina75mcg / day for more than 10 years. She was normotensive. Her neurological examination was normal. Brain CT and MRI showed normal results. No preventive treatment was started. We only advised the patient to avoid bathing in hot water. So, after the last episode she avoided bathing in hot water and headaches did not recur after a two-year follow-up.

Patient 2

A 65-year-old woman, who had no prior history of headaches, was referred to our Headache Centre because she developed a severe headache during a hot bath during the five days preceding the medical appointment. He presented with explosive right-side headaches. She had no other associated symptoms, such as nausea, photophobia, or phonophobia. The pain could not be relieved by taking an analgesic tablet and/or bed rest. This headache gradually developed and reached a maximum level of intensity in 10 min, lasting 45–60 min. She was normotensive. Neurological examination was unremarkable. Brain CT and MRI showed normal results. No preventive treatment was started. We only advised the patient to avoid bathing in hot water. So, after the last episode she avoided bathing in hot water and headaches did not recur after a one-year follow-up.

DISCUSSION

Bath-Related Headache (BRH) is a rare headache disorder first described by Negoro et al, in 2000 [1] and since its initial description, few cases have been described. Therefore, there are no established diagnostic criteria for this unusual form of headache.

Our two case reports are the second and third description of BRH in South America. Despite the evident predominance of this disorder in the Asian population, epidemiological researches that were carried out did not confirm if there are geographical differences in the prevalence of primary headaches [15].

In addition to the geographical features, this unusual form of headache seems to be almost exclusive to women, as there are only two cases reported in male patients [9, 13]. Generally, headache occurred in a bath in hot water and disappeared after removal of this triggering factor.

There is a headache attributed to external application of a cold stimulus in the ICHD-3β. It occurs when a cold stimulus is applied externally to the head, such as immersion of the head in ice water [2]. In recent years, some descriptions of a new headache have appeared in which the warm stimulus applied on the head was the one provoking the headache. The onset of this headache is more frequent when the patient wets the head with hot water [3,6–11,14], but this headache disorder may be triggered by the patient pouring hot water over his/her body [1,4,6] or soaking in hot water [1,12].

Its pathophysiological mechanism is unknown, but it is assumed that in predisposed individuals, excessive stimulation to the scalp temperature-sensitive receptors may cause this headache [16]. The bath may be one of the triggers of the reversible cerebral vasoconstriction syndrome and prophylactic use of nimodipine may shorten the duration of attacks [6].

In most cases the pain is self limited in the period from a week to a few months. To date, there is no effective prophylactic treatment and avoiding a hot bath prevents the onset of pain.

CONCLUSION

Hot bath-related headache is a benign headache unassociated with a structural lesion.

Clinical implications

- Bath-related headache is a primary headache
- Bath-related headache is more frequent in the Asian population

Patient informed consent

This clinical report was authorized for publication. The patients signed the Informed Consent Form.

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