

## LETTERS TO THE EDITOR

### Bath-related headache and topiramate

*Dear Sir* We read with interest the article 'Hot bath-related headache controlled by topiramate' by Lee et al. (1) and wish to comment on some omissions in their article and also seek their response to certain queries.

We wish to draw the attention of the authors to our article on 'Hair wash or head bath triggering migraine – observations in 94 Indian patients' (2, 3) wherein we have highlighted the beneficial effect of antimigraine prophylaxis on headache following a head bath. The headache in our patients was different from the type 1 bath-related headache (BRH) as categorized by Mak et al. (4) and more closely resembled the type 2 BRH described by Mungen et al. (5). We have also stated that there was a decrease in the attack frequency following prophylactic treatment to the point of the patients being able to resume their normal bathing habit once under treatment. As specified in the article *topiramate was one of the prophylactics that was found to be effective*.

On reading through the details of the types of headache in their case report, the following issues need further clarification.

- 1 It is well established that breeze and wind can be a trigger for migraine headaches, e.g. Chinook winds in Canada and the Sharev winds of Israel (6). Why then can the second type of headache, which they refer to as cold stimulus headache (CSH), not be an atypical migraine headache triggered by cold breeze and wind hitting the head and face?
- 2 Attempting to group a headache induced by environmental cold temperature and cold breeze hitting the head and face in the same category as headache induced by head and body contact with hot or cold water, I feel may lead to misinterpretation of an atypically triggered migraine as a new type of temperature-related CSH
- 3 The patient in their case report did not have thunderclap headaches, the headaches were long lasting with no need for acute management and there was no spontaneous remission. So these headaches cannot also be labelled as type 1 BRH.

Moreover, the type of headache that they describe in their patient following a hot bath also seems to have some features of migraine in terms of severity, throbbing nature, and the presence of nausea and vomiting; the hot bath and exposure to cold could well have been a trigger for these atypical migraine headaches. Response to an established antimigraine prophylactic like topiramate is therefore not an unexpected finding in a patient with these clinical features.

Their case report therefore only highlights an uncommon clinical presentation of a migrainous headache. Response to topiramate in a similar situation has been reported earlier (2). Bath-related headache (BRH) is a clearly different, easily distinguishable category of headache that still defies explanation and has no specific line of management. It would be premature to consider topiramate for the treatment of these headaches unless the entity is more clearly defined. If these headaches are indeed atypical presentations of migraine, then it is no surprise that topiramate is effective in controlling the frequency and severity. We look forward to hearing from the authors.

#### References

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## Reply

*Dear Sir* We appreciate Dr Ravishankar's interest in and valuable comment on our paper (1). We agree that our patient shares some clinical features with 'hair wash' or 'head bath' triggering migraine (HWB) (2). As Dr Ravishankar mentioned, the headache is stereotyped, closely related to hot-bathing, throbbing in nature, intermittently (not always) associated with nausea and vomiting, and responsive to a kind of antimigraine prophylaxis, i.e. topiramate. However, the headache in our patient developed just after pouring hot water and reached maximum intensity within 2 to 3 min during the bath, which is different from HWB. HWB usually developed during drying the hair or the body after leaving the bathroom and could be prevented by using a hair dryer (2). Also, the headache was triggered exclusively by hot bath, although a certain group of HWB (11 of 1500 migraineurs and of 94 HWB) has hair wash or bath as the only trigger (1, 2).

As for now, the underlying pathological mechanism of the hot bath-related headache (HBRH) has not been established and HBRH is not included in the International Classification of Headache Disorders (ICHD-II) (3). Previous reports defined HBRH on the basis of a characteristic triggering factor, i.e. hot bath, and the specific temporal relationship between the trigger and headache (4–7). Therefore the stereotyped headache in our patient can be diagnosed as HBRH, although it does not perfectly match with type 1 or 2 of HBRH (1, 6). However, considering the throbbing nature of the headache and previous reports of the association between temperature stimuli and migraine, our patient might be classified as having migraine or probable migraine (3). Taking this point of view, some previously reported HBRH patients could also be diagnosed as having migraine (4–7). The presence of uncommon features of migraine, i.e. hot-bath as an exclusive trigger, association with cold-induced headache, and no personal and family history of

migraine, led to a diagnosis of HBRH for our patient. However, the responsiveness to topiramate and characteristics of HBRH suggest that HBRH might share some pathophysiological mechanism with migraine (2, 4, 5).

Dr Ravishankar also raised the question about the diagnosis of cold-stimulus headache (CSH). CSH is a type of primary thunderclap headache featuring a severe intensity, sudden onset evolving in less than 1 min, and transient nature (3). As we described in the report, severe headache is *more* abruptly developed than HBRH, which usually evolved over 2 to 3 min, and more severe in intensity, but lasted for an unusually long period (1). The longer duration is somewhat confusing, but confers the uniqueness of both hot bath- and cold-induced headache in our patient.

## References

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