

Remarks on an educational training course on headache

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Abstract In the last years several studies have been performed on migraine; however, only few topics have changed the clinical practice. Among these, there are physiopathological insights (e.g., allodynia and gastric stasis) or therapeutical evidences (e.g., topiramate) that become very important in the management of migraine and could clarify the different response to the therapies. The aim of a training school on headache should be to link research to practice without transferring contradictory data. To teach is not only to support notions with simple data: we think that knowledge has to be used according to the condition of the patient and the situation in which the migraineurs live.

Keywords Migraine · Research · Therapy · Teaching

Introduction

Aims of a training school are to support students with update scientific information and to prepare new operators to better face their job. A school must be a link between research and practice. The importance of new data obtained from research depends on their reflections on daily activity.

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In the last years several studies has been performed on migraine; however, only few topics have changed the clinical practice. Among these, there are physiopathological insights (e.g., allodynia and gastric stasis) or therapeutical evidences (e.g., topiramate) that become very important in the management of migraine and could clarify the different response to the therapies.

Backgrounds

Cutaneous allodynia (CA) refers to the perception of pain or discomfort in response to non-noxious thermal and mechanical stimuli applied to normal skin [1], and is the clinical manifestation of central sensitization in migraine [2, 3]. CA is more commonly reported in persons with frequent headache, long duration of the disorder and transformed migraine, suggesting that it is the result of repeated sensitization of central pathways over time [4–8]. It has been suggested that central sensitization may be associated with neuronal changes impairing efficacy of triptans when used after 1 h from the onset of migraine attacks [9]. Therefore, the triptans effectively abort migraine attacks in 93% of patients prior to development of allodynia, compared with only 15% in the presence of allodynia [10]. Conversely, the presence of allodynia does not limit the use of intramuscular dihydroergotamine [11]. A more recent study suggested that intravenous administration of ketorolac or naproxen may effectively terminate migraine attacks, even after the onset of allodynia [12]. So, during a migraine attack, the acute use of triptans is not indicated after the beginning of allodynia. A possible alternative is to administer i.v. infusion of ketorolac or naproxen.

Several studies demonstrated that a gastric stasis is associated with migraine attacks. In practice, these

evidences prompt the use of antiemetics before treating migraine patients with NSAID [13, 14]. Nevertheless, it has been suggested that gastroparesis is a feature of the migraine rather than of the attack [15]. Some studies suggested that triptans are effective in reducing migrainous nausea by central mechanism of action [16, 17].

Efficacy of topiramate (TPM) in the prevention of migraine is well demonstrated [18, 19]. Last reports focus their attention on long-term use. Usually, prevention should last for 3–4 months, although recent evidences, as well as clinical experience, suggest the possibility of increased efficacy with use of preventive drugs for longer periods (up to 6–14 months) [20–22]. Also the frequency of adverse events was lower in the open label phase than the double-blind phase. A recent review observed that the clinical benefit appears to be sustained in patients treated with TPM over 1 year and that there was no loss of efficacy over time, even when patients switched from a higher to a lower dose [23]. These evidences let clinicians able to use different patterns of therapy, trying to satisfy the needs of patients with very different dosages and times to treat.

Conclusions

We reported only these few insights from clinical research. A training school of headache must link research to practice and does not have to transfer contradictory data. To teach is not only to support notions with simple data: we think that knowledge has to be used according to the condition of the patient and the situation in which the migraineurs live. Beside this, every teacher has his own exclusive experience provided by intuition that can be a good resort to learn something more than simple information. It is just this intuition that can suggest to the researchers new ideas and new strategies to move in new fields. In this case a school can achieve its real goal: to create a two-way relationship between science and daily practice, creating more efficient “actors” in both fields.

Conflict of interest statement The authors declare that they have no conflict of interest related to the publication of this article.

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