

## Editorial Commentary

### The visual system in migraine

The visual system participates in migraine in various ways: bright or flashing lights occasionally induce attacks; a band of flashing lights followed by visual loss spreading across the visual field during the migraine aura suggests an abnormal activation followed by deactivation of neurons in the visual cortex; painful photophobia, blurred vision and a sense of glare or dazzle sometimes precede and usually accompany headache; and perceptual disturbances often persist interictally, particularly between episodes of migraine with aura.

In this issue of *Cephalalgia*, Chronicle and Mulliners systematically review involvement of the visual system in migraine, from the eye to the visual cortex. Their review raises many questions. For example, how does visual stimulation trigger attacks? Is there any connection between visual triggers and the visual disturbances of the migraine aura? What is the pathogenesis of painful photophobia and glare in migraine? Is cortical hyperexcitability an intrinsic part of migraine or is it a side effect of the migraine aura?

Chronicle and Mulliners put forward the view that spreading depression or ischaemia might deactivate inhibitory GABA interneurons in the visual cortex. Loss of inhibitory or excitatory processes may account for perceptual deficit, susceptibility to visual illusions, and the

visual discomfort which often persists between episodes of migraine with aura. More fundamental could be an intrinsic central hyperexcitability which persists in a low-grade form between attacks of migraine, and erupts during attacks to cause a sense of glare, painful photophobia, and perhaps headache itself. This substantial review draws together clinical and experimental literature on the visual system in migraine, and makes the point that further investigation should enhance our understanding of the pathogenesis of migraine.

PETER D DRUMMOND

### Headache in children and adolescents

In recent years, there has been an increasing interest in childhood and adolescent headache epidemiology. Reports underline a high rate of head-pain sufferers independent of the geographic area and socio-demographic situations. A common point is that headache represents the most frequent complaint during childhood throughout the world.

In an interesting paper from Porto Alegre published in this issue of the journal, the authors underline how the experience of head pain could represent a universal feeling: practically all children have headache at least once. Migraine prevalence in Brazil overlaps with international reports, but the authors stress the high rate of occurrence of tension-

type headache, even though they do not specify nosographic characteristics. Interestingly, girls had the highest prevalence of headache. It is well known that there is no gender difference in headache prevalence among prepubertal subjects. Thus, it is likely that this high prevalence of headache in girls is related to the enrolment of a large number of adolescents. We wonder how many of these children with headache have consulted a specialist.

I have seen an increasing number of children ask for help at the University Headache Centre. The cultural idea of a good quality of life and the fear of secondary headache have prompted the family and pediatrician to ask for our intervention. Some years ago, studying the prevalence of headache and migraine in a city in the southern part of Italy, we found a prevalence very close to that of Porto Alegre group. Nevertheless, very few families were asking for specialist intervention. We attributed this under referral not only to the difficulty in finding a specialist in this field, but also to cultural reasons: the cultural background was based on the idea that the experience of pain represents a normal experience of life for girls and a formative step for males, independently of the frequency and intensity of the attacks.

Focusing the attention on the relevance of headache problems in childhood could contribute to a fight against prejudice and cultural disaffection.

VINCENZO GUIDETTI