

MEETING ABSTRACT

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Headache and comorbidity in pediatric age

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From 70th Congress of the Italian Society of Pediatrics, Joint National Meeting SIP, SICuPP, SITIP
Palermo, Italy. 11-14 June 2014

Background

Frequently headache is associated with numerous comorbidities, but data are incomplete and sometimes conflicting.

The aim of this review is to highlight the relation between headache and associated disorders.

Materials and methods

We identified studies via PubMed search indexed for MEDLINE using “*headache comorbidity and children*” as key words. The time period covered was approximately 10 years. Only English language articles were reviewed.

Results

The findings of our research demonstrate that epilepsy, anxiety/depression, attention deficit/hyperactivity disorder (ADHD), obesity and childhood abuse are the most frequent and investigated headache-comorbidities.

Headache and epilepsy is the most frequent comorbidity in pediatric age [1-3]. The major association is with focal epilepsies, in particular cryptogenetic ones [4,5]. The real effect of headache on seizure-related-headache is still unclear. Peri-ictal headache is a common feature of epileptic seizures: it can occur before, during or after seizures [6]. Although family history of headache and/or epilepsy is referred, there is not a clear association with specific type of both disorders [5].

Moreover, migraineurs have a higher prevalence of anxiety/depression than controls [7,8]. Severity of anxiety/depression is linked with severity and frequency of migraine [9]. Therefore, parents and relatives of migraineurs are affected by both headache and psychiatric disorders [10].

Another important comorbidity is headache and ADHD [11]. Headache is not associated with ADHD overall but with hyperactivity/impulsivity symptoms [12]. While the relation with inactivity symptoms is controversial, differences between headache types and ADHD have

been not found [13]. Structural and functional abnormalities in the brain networks seem to be central in both headache and ADHD pathophysiology [14].

It has been demonstrated an association between migraine and obesity, but the real link is still matter of debate. Psychological conditions and inflammatory mediators may be involved, as a common pathophysiologic mechanism [15]. Body mass index seems to be related to high frequency, degree of migraine attacks [16-18], and chronic migraine [19].

Many studies evidence the relationship between migraine and childhood abuse. The emotional abuses' prevalence in migraineurs is higher than controls and it is more common in women [20]. Childhood maltreatment appears to be related to chronic and disabling headache [21]. This pattern leads to an early life stress that influences the neurobiological physiology [22].

Conclusions

Further studies are needed to obtain detailed epidemiological data and to understand whether common mechanism(s) below these conditions exists. Physicians should consider and investigate the possible co-occurrence of these disorders in patients with headache.

Published: 11 August 2014

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doi:10.1186/1824-7288-40-S1-A83

Cite this article as: Verrotti et al.: Headache and comorbidity in pediatric age. *Italian Journal of Pediatrics* 2014 **40**(Suppl 1):A83.

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