

Twelve cases of analgesic headache

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Abstract

Analgesic headache occurs when drugs given for the treatment of headache aggravate symptoms. The condition is well recognised in adults but has not been described before in children in whom it may be induced by mild analgesics such as paracetamol used alone. Twelve children (nine girls and three boys, aged 6 to 16.5 years) with analgesic headache (from three months to 10 years) are reported. Five children were taking paracetamol alone, six were taking paracetamol with codeine, and one child was taking ibuprofen. The abrupt withdrawal of analgesic drugs was successful in eight of the children; two had episodic migraine headaches; one had headaches but with reduced frequency; and one returned to analgesic abuse.

(Arch Dis Child 1998;78:555-556)

Keywords: headache; migraine; analgesic; paracetamol

Physicians treating headaches in adult patients are aware that drugs given for the treatment of headache may aggravate the symptoms. Analgesic abuse headache is listed as a separate category in the International Headache Society classification of headache disorders.¹ In a recent review Olesen² noted that analgesic headache is a common treatable condition that deserves further attention. Despite widespread knowledge of the condition in adults, analgesic headache has not been described in children.

The condition has been described as headache occurring during daily intake of medication for symptomatic headache. The headache occurs daily or almost daily but disappears within a few weeks after withdrawal of medication.³

Analgesic headache may be caused by a wide range of drugs. Headache caused by chronic ergotamine use is well known, but narcotics and even mild analgesics may aggravate tension headaches as well as migraine when taken daily. Studies in adults show that abuse of single preparations of aspirin, phenacetin, or paracetamol is rare. Most cases of analgesic headache are caused by compound preparations of a simple analgesic with caffeine, codeine, benzodiazepines, or barbiturates.⁴ In some of these cases the headache may be caused by excessive use of the "non-analgesic" drug in the compound, particularly caffeine.⁵

Patients and clinical findings

Over 10 months, I saw 12 children referred to a general paediatric clinic at a district general hospital with a complaint of headache occurring on at least four days a week. The children

(nine girls and three boys) ranged in age from 6 to 16.5 years (mean 12.5, median 13.7). The children had a history of headaches that became increasingly frequent. The history of headaches ranged from three months to 10 years. These children comprised about a quarter of all referrals with headache to the outpatient clinic during this period.

All 12 children were using at least one dose of an analgesic drug for each headache and eight were using analgesic drugs daily. Many of the children and their parents initially denied drug treatment, and only admitted to analgesic use when direct leading questions were asked. Most did not consider mild analgesics, available without prescription, to be drug treatment. Five were taking paracetamol alone, six were taking combinations of paracetamol and codeine, and one child, even in the absence of symptoms, was taking ibuprofen daily to try to prevent the onset of headache, with extra doses of the drug being taken when the headache actually occurred. Interestingly, many of the children felt that the drugs were not of benefit but continued to take them anyway.

In all cases, clinical examination including a full neurological examination, proved unremarkable. Seven of the children had computed tomography of the head, which showed no abnormalities.

Treatment and outcomes

Initial treatment in all children consisted of an abrupt withdrawal of all analgesic drugs. It was explained to the children and their parents that this was necessary as the drug treatment was causing an increased frequency of headaches. No alternative drug treatment was given during the analgesic withdrawal period. Many parents were initially reluctant to accept this advice, as they felt they were denying their children essential symptomatic relief.

Drug withdrawal produced complete resolution of all headache symptoms in six patients (50%). In a further two patients the daily headache resolved but the children continued to have intermittent episodic migraine headaches that were not sufficiently frequent to justify regular prophylactic treatment. The remaining four patients all showed some reduction in the frequency of headaches but continued to have recurrent troublesome symptoms.

Sodium valproate has been reported to be of benefit in adults with chronic tension headache,⁶ and has been used in adult patients with analgesic headache. Three of the patients with continuing symptoms were prescribed sodium valproate in the doses recommended by the manufacturers for epilepsy treatment.

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Accepted 17 February 1998

None of the patients showed any improvement in headache symptoms and the drug was withdrawn.

Three patients with continuing symptoms were referred for psychiatric treatment. The parents of one child refused to attend. The remaining two children showed complete resolution of symptoms.

The final outcome in the 12 patients was complete resolution of all symptoms in eight children; episodic migraine headaches in two; reduced headache frequency but continuing troublesome symptoms in one; and complete failure to respond with return to analgesic abuse in one.

Children with analgesic headache are a particularly difficult group to treat. Six of the 12 patients failed to attend clinic appointments, including patients in whom treatment was successful. Follow up to measure outcome required contact by telephone and through general practitioners.

Discussion

Analgesic headache does occur in children and is not restricted to adults. It should be suspected in any child with a history of headache on four or more days a week. A history of analgesic use should be sought in all such children. I did not see any other children with such frequent headaches but without excessive analgesic use during the study period.

In adults, analgesic headache has been reported mainly with the frequent use of ergotamine or of compound analgesic preparations. It seems likely that this merely reflects the pattern of drug use for headaches in adults⁷ rather than being a necessary part of the syndrome. In this study half of the children were using a single simple analgesic; clearly paracetamol alone is sufficient to induce analgesic headache.

The mechanism of analgesic headache is unknown. Possibly it may be no more than a withdrawal phenomenon. The main treatment for analgesic headache is withdrawal of analge-

sic drugs. There has been no double blind placebo controlled study of analgesic withdrawal but many papers have reported substantial improvement in the frequency or severity of headaches after daily analgesics are stopped.² This approach also seems appropriate for children. We do not know if those children in whom drug withdrawal appeared to produce no benefit complied with the advice given, although all claimed to have done so. Some children may benefit from psychological assistance. Sodium valproate, however, does not appear to be of benefit.

There is no information on the prevalence of analgesic headache in children. Abu-Arafeh and Russell⁸ found that migraine was by far the most common cause of severe recurrent headache in childhood. Children with analgesic headache were probably included among the 10% of children with severe recurrent headache classified as tension headache. The condition is more important than these small numbers would suggest as the frequency of symptoms results in considerable disability for those affected. Recognition of analgesic headache in children makes possible successful treatment of its disabling symptoms.

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