



CLINICAL PRACTICE

CHRONIC PRIMARY HEADACHE — REDUCING THE RISK OF TREATMENT

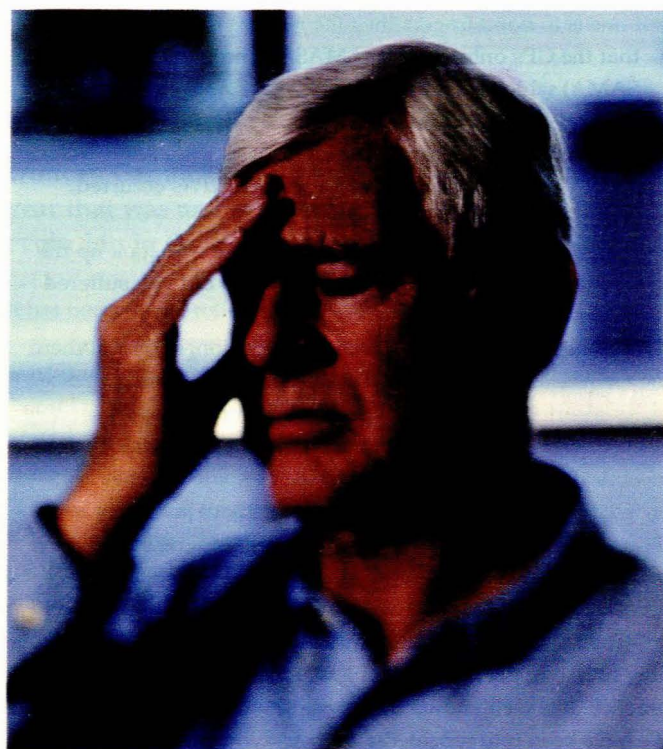
Ivan Cohen

Headaches have plagued mankind for more than 5 000 years¹ and yet they are still one of the most common reasons for medical consultation. Approximately 70 - 75% of men and more than 80% of women suffer from headaches each year.^{2,4} The Nuprin Pain Report,⁵ produced by Bristol Meyers in 1985, indicated that 550 million work days were lost in 1 year by Americans because of pain, which resulted in 55 billion dollars of lost revenue. In the Nuprin Pain Report, 73% of the subjects reported that they suffered from headaches.

CLASSIFICATION

To facilitate management and research, headaches have been classified according to clinical criteria. Commonly used headache classifications are the classification by the Ad Hoc Committee on Classification of Headache,⁶ the classification developed by Diamond,⁷ and the classification by the Headache Classification Committee⁸ of the International Headache Society. Diamond's frequently used classification categorises headaches into vascular (including the migraine family), muscle contraction (tension) and traction/inflammatory (organic). Evidence has accumulated to suggest that there are many similarities between tension and migraine headaches, and there is therefore growing support for the existence of a continuum between the two.^{9,12}

The majority of chronic headaches are vascular and tension in type and idiopathic in origin. Moreover, acute headaches are usually also idiopathic; it has been estimated that only 0.004% of acute headaches are a symptom of serious underlying disease.¹³ It has been suggested that because medical training traditionally emphasises headache as a symptom of underlying



pathology rather than as a primary disorder, medical practitioners may feel that their responsibility to the patient has been discharged when pathology has been excluded.¹⁴ Furthermore, many practitioners may perceive that chronic headaches are unrewarding disorders to treat.¹⁴

On the other hand, surveys among headache sufferers indicate that they are severely dissatisfied with medical care. In one study, nearly three-quarters of headache patients reported dissatisfaction with medical treatment, citing as sources of their dissatisfaction medical practitioner bias, lack of compassion and understanding, and inadequate explanation.¹⁵ Only 11% of 158 migraine sufferers participating in a clinical trial described their usual headache therapy as being very good, and only 5% believed that they received sufficient doses of medication to treat a migraine attack.¹⁶

MANAGEMENT

Headache is typically managed with symptomatic medications,¹⁷ the potential risks of which include rebound headache, drug-induced chronic headache, reduced effectiveness of prophylactic headache medications, symptoms associated with cessation of headache medications, and other side-effects.¹⁸ Chronic headache may be precipitated by frequent use of paracetamol, aspirin, opioids, non-steroidal anti-inflammatory drugs, muscle relaxants and ergotamine tartrate.¹⁹⁻²⁴ Moreover, according to the drug abuse criteria of the International Headache Society,²⁵ a considerable proportion of headache patients abuses drugs.

Ivan Cohen trained at the University of Cape Town. He was appointed head of the Campus Health Service and Sports Medicine Clinic at the University of the Witwatersrand, where he was the only member of staff to be awarded, for 3 consecutive years, the Snaar Viljoen Scholarship for sports medicine research. He is deeply concerned about the widespread practice of medication abuse among chronic headache sufferers.



Education and preventative therapy, on the other hand, may reduce chronic use of symptomatic headache medications and may therefore improve prognosis.¹⁸ For reasons given above, it is important that headache prevention therapy has a low risk of side-effects and chemical dependence. One form of headache prevention therapy with no risk of systemic side-effects or chemical dependence is the use of intra-oral occlusal splints (IOS), also used to treat functional disorders of the masticatory system. These disorders of the masticatory system are known by a variety of names, including temporomandibular disorder (TMD), mandibular dysfunction, craniomandibular disorder, myofascial pain dysfunction and Costen's syndrome.

INTRA-ORAL SPLINTS

Several epidemiological studies have shown that an association exists between headache and functional disorders of the masticatory system.²⁶⁻²⁹ The above association has been recorded in clinical studies of TMD,³⁰⁻³² and treatment of TMD has also been shown to reduce the incidence of headache.³³⁻³⁷

To assess the value of IOS in the prevention of headaches, studies should be controlled with placebo treatments, blinding and randomisation. However, Moses^{38,39} has argued that investigation of pain caused by TMD constitutes poor research methodology because TMD is a generic diagnosis for a large number of different disorders with a common symptomatology and there are too many other confounding factors, such as referred pain, poorly localised pain and inaccuracy of TMD pain reports.^{38,39} Moses^{38,39} contends that pain in TMD is therefore 'untestable, unmeasurable and unreliable', and must be considered unscientific as a criterion for research.

In a study conducted on the therapeutic efficacy of intra-oral splints using a parallel, randomised, controlled and blind design, it was found that significant reduction of pain was achieved to a similar degree, irrespective of whether the groups used a subpalatal or a full occlusal splint. Time periods varied between groups from 30 minutes per week to 24 hours per day.⁴⁰ The authors concluded that the effect of treatment was nonspecific and not related to the type or duration of IOS therapy. However, although significant reductions of pain were found in all the groups,⁴⁰ the fact that there were no inter-group differences in pain reduction may have been a result of the practical difficulties of using pain as a determinant of treatment outcome in TMD research.^{38,39}

THE TMD DILEMMA

A further difficulty with placebo-controlled research of TMD using IOS relates to the mode of administration of the placebo, which can influence the placebo's effects.⁴¹ Placebo-controlled research on the therapeutic effects of IOS therefore necessitates an intra-oral placebo. However, an intra-oral placebo can

modify the function of the masticatory system by modifying cognitive awareness and masticatory muscle function, consequences which cannot be ascribed to pure placebo effects.⁴²

The mechanisms of the association between TMD and headaches have not yet been clarified. Similarly, the mechanisms whereby IOS may reduce headaches also require elucidation. However, there is evidence of a reduction of chronic headache in association with IOS therapy,³³⁻³⁷ even in patients who failed to respond to standard pharmacotherapy prescribed in a neurology clinic.³⁴ Moreover, the response of headache symptoms to IOS therapy is not associated with the presence or absence of other symptoms and signs of TMD.³⁴ The presence or absence of other clinical features of TMD is therefore not a reliable prognostic indicator of the likelihood of success of IOS therapy in the treatment of headache.

The percentage of patients with reduction of headache using IOS therapy has been reported to be 33%³⁴ (tension headache), 82%³⁴ (combined tension-migraine headache) and 50%,³⁷ 68%³⁵ and 91%³⁶ (type not specified). Patients with migraine and tension vascular headache have been reported to benefit from IOS therapy more than patients with pure chronic tension headache.³⁴

Despite the fact that the mechanisms whereby IOS may reduce headaches have not been clarified, the potential benefits of IOS therapy in the management of headaches outweigh the disadvantages: there are no contraindications (other than oral disease or allergy to the acrylic material, both of which are rare) and no systemic side-effects, the ongoing treatment cost is low, treatment is non-invasive and reversible, and chemical dependence does not occur. Moreover, when patients with chronic primary headache do not experience relief on IOS therapy, such failure does not contraindicate other management. IOS therapy should therefore be provided to patients with chronic primary headache by a suitably qualified dental surgeon. The dental surgeon will adapt the design of the IOS to suit each patient's clinical presentation. In patients complaining of headache, IOS should not be used until medical examination has excluded the possibility of an organic disorder.

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ARE OUR SPORTSMEN AND WOMEN GETTING A FAIR MEDICAL DEAL?

P Firer, M Ferguson

South Africa is blessed with a large and top-rate sporting population and with top-rate doctors and scientists interested in all aspects of management of sports participation.

Yet somehow our players are being short-changed.

Do top-rated international cricketers have to be trundled around England for numerous assessments and investigations by people not really known to the team management, only to be sent home for diagnoses and a management plan? This on two separate tours!

Does an international soccer goalkeeper have to undergo outdated investigations, followed by an unnecessary operation in a foreign country by a surgeon totally unknown to the team management, the player, or even the orthopaedic community in South Africa, then to be told that he needs another operation to correct his problem?

Does an international hockey goalkeeper have to have an injury for 6 weeks before a diagnosis is made and it is too late for adequate treatment to enable him to participate pain-free in an international event?

Do our sporting teams have to tour without the most experienced experts to handle their problems?

There is also a growing misconception in South Africa that we can produce 'sports medicine specialists'. There is no such individual, and it is impossible for one person to attain the necessary knowledge and experience.

Let us consider the fields of sports medicine and break them up into 'pre-participation' and 'in-competition' areas as far as the sportsman is concerned.

Ponky Firer and Mark Ferguson specialised in orthopaedic surgery at Wits and are in separate private practices in Johannesburg. They have a common interest in orthopaedic sports trauma, Dr Firer concentrating on the knee and Dr Ferguson on the shoulder. Both are committed to the principle that every sportsman should have the right to be treated by specialists specifically trained, experienced and interested in sports injuries, and this article was prompted by their frustration at the poor handling of some of our international athletes.