

Normal findings at these examinations would seem to warrant the conclusion „no neurological changes”.

We had found answers to many questions; the initial question of a definition of concussion of the brain had meanwhile proved to be of no relevance to our actions.

### Treatment

Concussion of the brain is a typical condition for general practice, and requires no referral.

We agreed on the duration of bedrest: brief (a few days), with ambulation guided by the complaints. It seemed wise to bear in mind that most patients feel worst between the sixth and the twelfth hour after the accident. Most of them no longer have any complaints after the third day and, next to the presence of the obligate characteristics, this clinches the diagnosis of concussion of the brain. It is pleasant for the patient to have his bedrest in a quiet environment.

We considered it unnecessary to impose restrictions, and most of us make no appointment for a repeat-visit. We did agree that it is advisable to have the patient contact us if complaints persist beyond the third day, in order to prevent fixation on the syndrome and on the basis of the knowledge that the total duration of illness is as much longer as the patient is later in indicating improvement.

We reached no agreement on the suggestion – particularly with regard to children – to wake the patient regularly during the first twelve hours after the accident in order to eliminate more serious conditions. One of the participants as a rule advised the parents to wake their child at night for a „pee” and a drink of water. He tacitly assumed that he would be alerted if anything untoward happened, and in this way he did not have to impose on the parents the stress of watching their child for developments which rarely occur.

We also differed about the use of symptomatic pharmacotherapy. A few of us urged a more uniform policy, but most of us were reluctant to accept this.

### Conclusion

We spent eighteen hours discussing this subject. It seems a lot, but we realize that we needed time to become accustomed to each other and to a new method of learning: learning from gaps in one's knowledge. We have noted that

knowledge thus enhanced has led directly to changes in our behavior in relation to the syndrome in question; our actions were based on firmer convictions. One of the older participants said about this: „You think like a general practitioner, and you do not feel like a student being educated by specialists”. The meetings were characterized by hard work in a relaxed, informal atmosphere. Two members of the group ceased attending, but the others went on.

*Summary. This paper reports on the way in which a group of general practitioners accounted for and revised their views on and actions in relation to concussion of the brain in the course of a number of meetings.*

*Samenvatting. Gebogen over commotio cerebri. Een bericht over de wijze waarop een groep huisartsen tijdens enkele bijeenkomsten hun inzichten en hun handelen ten aanzien van commotio cerebri hebben verantwoord en herzien.*

Biemond, A. Hersenziekten, diagnostiek en therapie. *Bohn, Haarlem*, 1961.

Hooft, F. van 't. Commotio cerebri en andere gevolgen van schedeltraumata. Ziekteverloop en prognosis. *Thesis Utrecht*, 1973.

Participants of these meetings were: Cees Buiks, Guus Klein Horsman, Wim Ligtenberg, Eloy van de Lisdonk, Evert Manuels, Paul Mommers, Dick Nadorp, Hans Nolet, Ed Nijsten, Marianne Prick, Kees Scheffers, Reinier Somford.

### Nota bene

The word „remedies” implies a delusive claim: these biologically active compounds rarely (if ever) „remedy” anything, although people sometimes die unless they are used. (Proposition in: A. M. J. Schoonen. Mass transport across fluid/fluid interfaces, release and absorption of drugs from non-pillar dosage forms. *Doctoral thesis Groningen*, 1980.)

## From practice

### An adolescent with idiopathic headache

*Can man live without a wisdom tooth?  
Man can, but an oral surgeon cannot.  
W. A. M. van der Kwast*

Headache – one of the most common symptoms in general practice – indicates serious illness in a small number of cases (in one out of sixty-five patients according to *Hodgkin*). The other patients with headaches confront the general practitioner with a problem and necessitate a search for the cause of the complaint – or symptom – which may literally range from „top to bottom”. In such cases the main „problem” is the time required for a detailed history and examination.

DR K. GILL

This was one of the motives that prompted the Alphen aan den Rijn study group of the Netherlands Association of General Practitioners to devise and publish a plan of investigation for headache. This headache protocol was based on a detailed study of all patients with headaches who in the course of two years presented in the surgery in seven general practices. The purpose of the study was to find a way out of the sea of troubles that can so easily engulf the general practitioner. In such cases a methodical approach – that is to say: a phased history, systematic examination and subsequently if necessary a phased care strategy – can be very helpful.

Possible causes of headache include vascular dysfunction, prolonged muscle spasms, traction on intracranial tissues and lesions of the eyes, ears, nasopharyngeal area, teeth and cervical region, and neuritis or neuralgia involving the cranial nerves. Other possibilities to be taken into account are tensions, intoxication, hypertension, metabolic disorders, cerebral arteriosclerosis, as well as posttraumatic and functional headache.

*Oliemans* calculated that the number of consultations per condition averages about 2.5. For headache as „symptom” he calculated an annual number of 19.9 consultations; in this respect it is to be

noted that the author found an average of three consultations per psychogenically determined illness. He does not specify the duration of the contacts.

It is an established fact that in many cases we learn more from patients than from textbooks. A case history can be presented to show how a dental affection might give rise to „idiopathic headache“. Oral health is likely to be taken for granted by the general practitioner; and certainly he would not think of anything unusual concerning that „sleeping dog“: the wisdom tooth. The young woman described in this case report scored four consultations for guidance and treatment of her headache during the first, and eight during the second year.

#### Case history

In September 1977 a young woman aged 17 presented with complaints about headaches. She had had infectious mononucleosis six months previously, and this had coincided with a period of preparations for her final secondary school examination. She had meanwhile started to attend training courses in kindergarten teaching. She habitually smoked twenty-five cigarettes per day. Although she usually went to bed by about 10, she could hardly ever sleep before midnight.

The headache history was uncharacteristic. I decided to prescribe Paracetamol (p-acetamidophenol) and to advise her to try to reduce smoking. A few months later the intensity of the headaches had diminished. She had reduced her smoking to ten to fifteen cigarettes per day. She complained of halitosis, which I was unable to explain. Her teeth had been given proper care. A year later she was hospitalized after an accident, and a cranial X-ray was made in view of tenderness over the zygomatic bone. The X-ray revealed no lesion.

In 1979, two years after the first consultation, the junior doctor saw her again in connection with complaints about headaches. He prescribed a placebo (Rubrochin, one capsule twice daily), whereupon the patient developed photophobia and the headaches exacerbated. The patient complained of a sensation of pressure on the temporal region and she woke at night because of the headache.

The history yielded the following data:  
– „a sense of pressure and haste“ (connected with her final examination as a kindergarten teacher?);

– loss of libido since she had been on oral contraceptives.

Physical examination revealed no clues to her complaints.

Since headache is among the long-term side effects of oral contraception, the patient and I decided that she would change to using condoms for a while. The change made love-play more pleasant for her, but the headaches persisted. She had meanwhile stopped smoking altogether.

Mostly in view of the approaching final examination and at the urgent request of the patient, she was referred to a radiologist for a cranial X-ray. The radiologist found a transversely placed, impacted third upper molar in the floor of the maxillary sinus (*figure 1*). This can be regarded as a cause of headaches, and the patient was referred to an oral surgeon. Two weeks after surgical removal of the right third superior molar the headache was substantially alleviated on that side, but persisted unchanged on the left.

I asked the radiologist to take another close look at the left third upper molar, to establish whether this was also impacted. This was indeed found to be the case (*figure 2*), and the oral surgeon was asked to remove this molar as well. The headache disappeared soon after.

#### Anatomy

The posterior superior alveolar branches of the maxillary nerve unite

with the infraorbital nerve to form a sensory nerve which, via the trigeminal ganglion, unites with the mandibular nerve and the ophthalmic nerve to form the sensory radix of the trigeminal nerve (which also encompasses the thinner motor radix). This explains how referred pain can develop when a third upper molar is impacted.

#### Literature

The literature comprises conspicuously more reports on the lower than on the upper wisdom tooth: Murray Robb, Hoek, Schneider, Van der Kwast, Laskin and Richardsson almost exclusively discuss the problems of the mandibular third molar, and mention the maxillary third molar only casually.

In physiological terms, the human skull can be divided into two parts: the neurocranium, which contains the brain, and the splanchnocranium or viscerocranium, which has a function in digestion. The mandible of primitive man was highly developed, but has been markedly reduced in size as a result of domestication, thus reducing the space to accommodate the teeth. The volume of the neurocranium has greatly increased in the course of the ages. These two aspects of evolution probably explain the fact that the mandible unmistakably poses more problems than the maxilla.

Van der Kwast reported that impacted teeth can exert pressure on nerve

Figure 1. The radiologist found a transversely placed, impacted third upper molar in the floor of the maxillary sinus.

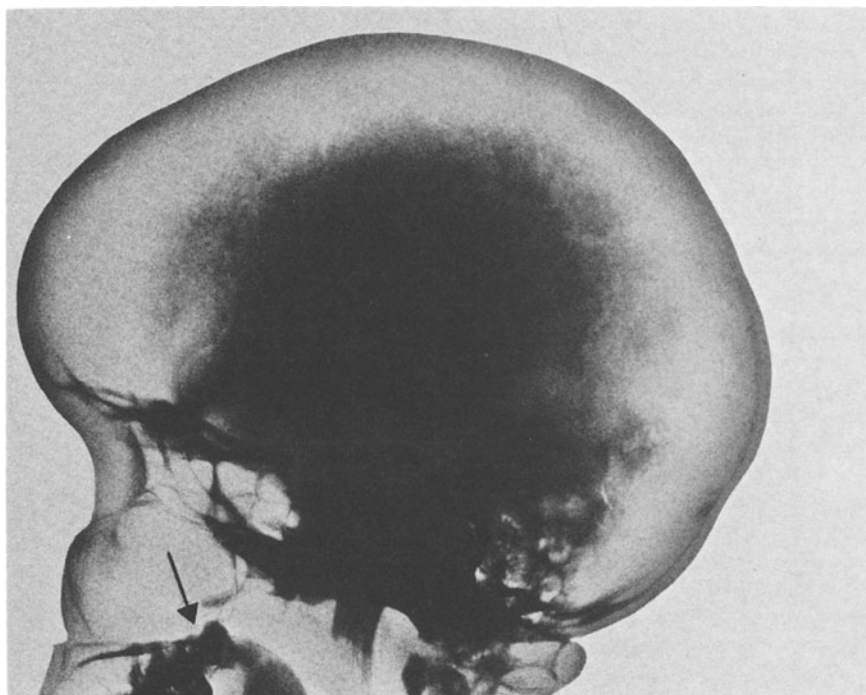
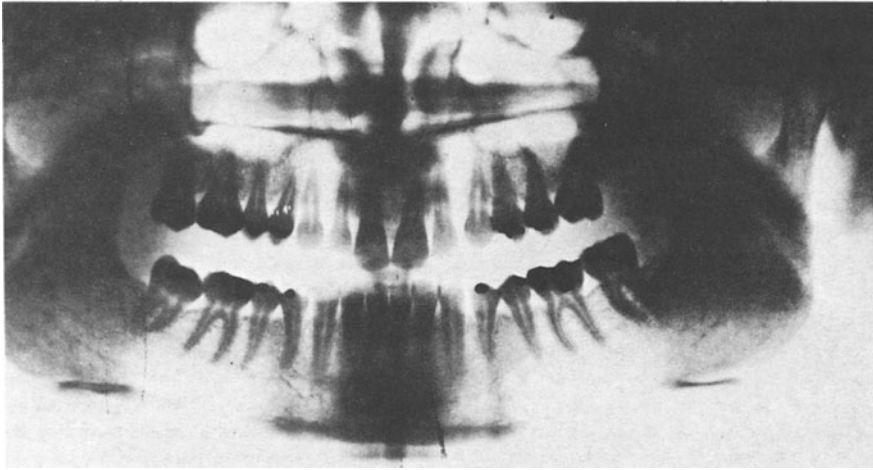


Figure 2. Another close look at the left third upper molar, to establish whether this was also impacted. This was indeed found to be the case.



branches. He frequently observed that headaches, especially in adolescents, disappeared after extraction of unerupted third molars.

The fact that patients with complaints caused by an impacted third molar are seen almost daily at an oral surgery clinic (*Van der Kwast*), and the fact that extraction for preventive reasons is entirely justifiable, prompted me to draw attention to this problem.\*

#### Concluding remarks

So far as we know Hippocrates already mentioned the third molar. In what may be described as an „anatomical rage”, Vesalius called these teeth *dentis serotini*; he is said to have suffered from pericoronitis while he was writing his „*De humani corporis fabrica libri septem*”! Darwin predicted that the wisdom teeth will sooner or later disappear from human dentition. The phylogenetic reduction of the mandible should explain this.

Since dental abnormalities as possible causes of headache are generally given scanty attention, the case described here was taken as an opportunity to discuss the problems of the third molar. A study of the literature and an analysis of this case led to the following conclusions:

- halitosis in spite of proper dental care may be related to an impacted third molar;
- experience has shown that unerupted third molars can give rise to headaches, especially in adolescents;

- the incidence of impacted third molars is twice as high in women as in men (*Hellman*);
- restoration of wisdom teeth is nearly always a technical error (*Van Gool*);
- extraction of an impacted third molar for preventive reasons is entirely legitimate;
- the fact that our language has such an abundance of expressions referring to the head (his head is reeling, this is over my head, to break one’s head over some problem, to lose one’s head and, to end with inebriety, one has a very heavy head on the morning after) probably explains why we tend to be rather too ready to explain a headache away as psychogenic;
- oral contraceptives tend to become a general scapegoat;
- we cannot establish with certainty whether the favorable course in this case was due to a placebo effect.

What is not sought will not be found. The adagium „let sleeping dogs lie” should not be applied to third molars.

#### Postscript

After completion of this paper I found, in the „Question and answer” section of the *Ned. T. Geneesk.* (124, 432; 1979), the question whether it is advisable to extract the third molars in otherwise healthy persons. Because extraction at an early age is „considerably simpler than at an advanced age”, surgical extraction is described as good policy. In this context *Van der Kwast* reports that preventive extraction of lower third molars expected to pose problems is routinely done in navy personnel. *Raley et al.* are of the same opinion: „There are several reasons that would justify

removal of third molars prophylactically at an early age (18-25 years)”.

*Summary.* Headache as a symptom is discussed with reference to the case history of an adolescent. The symptom was found to be based on two impacted third upper molars. The literature mainly concerns itself with problems arising from mandibular molars. However, the course of the nerves in the maxilla can explain the phenomenon „headache” as a possible consequence of an impacted wisdom tooth. The „idiopathic headache” in this patient disappeared after extraction of the third upper molars.

*Samenvatting.* Een adolescent met idiopathische hoofdpijn. Hoofdpijn als symptoom wordt op geleide van de ziektegeschiedenis van een adolescent besproken. Het symptoom bleek te berusten op twee geïmpacteerde derde molaren, links en rechts in de bovenkaak. In de literatuur wordt voornamelijk over de problemen van de verstandskies in de onderkaak gesproken. Het verloop van de zenuwen in de bovenkaak kan echter het fenomeen „hoofdpijn” verklaren als mogelijk gevolg van een impacteerde verstandskies. De „idiopathische hoofdpijn” bij deze patiënt verdween na verwijdering van de derde molaren.

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\*Egyedi informed me (personal communication) that an impacted canine can cause similar complaints.