

Vertebral-origin headaches

F. Gerstenbrand, W. Struhal

Vienna

Vertebral-origin headaches, better called cervicogenic headaches, are the most common type of headaches. But the cervicogenic headaches are the step child in the headaches family. The great number of synonyms (vertebragenic headaches, cervicogenic headaches, spondylogenic headaches and tension headaches – Spannungskopfschmerz), the small interest by the pharmaceutical industry (minimal use of drugs) and the possibility of a successful treatment executed by neuro-orthopedic methods is the explanation of the ignorance of cervicogenic headaches and its treatment.

Pathologically the term cervicogenic headache should be preferred. A functional disturbance of the cervical spine obligatory can be found. Functional blockage and wrong posture of the vertebral spine, especially of the upper part, is the consequence of the modern industrial life with the demand of sitting position during professional work and the diminished motoric activity which is followed by atrophy of neck and vertebral muscles. In the history of some patients the whiplash injury can be found.

The term vertebrate spine goes back to the descriptive period of anatomy. Because of the central position in the human body the term human axis organ, an organ should be used. This is under the permanent influence of the postural and turning reflexes, responsible for the upright posture in the gravity field, regulated by reflex centres in the midbrain-pons region. The receptors are in joints and muscles of the cervical spine, supported by the labyrinth and the receptors in the foot sole. As an additional obligation the cervical spine has to carry the head and is responsible for its free movements. The cervical spinal cord is located in the spinal channel.

In the phylogenesis of the human being the upright posture goes conform with the development of the vertebral spine from quadropeds with a bow bridge construction to a lattice tower-construction. The axis organ is using the arc system to carry the severe body and the head with the small vertebral bones, the vulnerable discs and the neck muscles. Every impact disturbing this sensitive construction is reacted by a dysregulation and as a consequence degenerative changes of the discs, vertebral joints, vertebrate bones and legaments.

The main symptoms of cervicogenic headaches (Mumenthaler and Schliack) are pressure headaches beginning in the neck, spread out to the forehead, mostly both sides, sometimes with a maximum behind the eyes. An iron ring sensation can be felt. Sometimes pains in C2 and in the face of one side are observed. Additional symptoms are cervicalgia and cervicogenic vertigo (upper cervical syndrome). Functional blockage of the upper cervical spine can be registered in addition painful pressure points on the occipital nerve, in some cases a dysaesthesia on the scalp and in the nervous root region C2 can be found, obligatory the neck muscles show a tension.

In differential diagnosis meningeal headaches, arteriitis temporalis, occipital neuralgia, cluster headache and the different forms of vasomotoric headaches have to be in mind. Sometimes a combination with migraine can be observed, diagnosed as migraine cervicale (former terminology).

Pathophysiologically an irritation of the nociceptive afferent system caused by functional blockage of the upper cervical spine, hypertension of the neck muscles and a severe blockage of the axis-occiput junction is the main hypothesis for the cervicogenic headaches.

In functional X-ray with head movement the blockage of cervical spine is discovered, the cervical MRI shows degenerative changes. A neuro-orthopaedic examination using the manual therapeutic method is necessary for discovering the functional blockage.

In the treatment of cervicogenic headaches a deblockage the isometric manipulation method is the most important treatment possibility. Local infiltration of the tensed muscles with Xylocain can be helpful, in case of muscle relaxantia combined with analgetic are necessary. A systematic physiotherapy to influence the wrong posture of vertebral spine and the miss-sterotypes has to be started and consequently followed, as well as methods to build up the insufficient neck muscles and vertebral spine muscles.

It is surprising that with a detailed diagnosis and with special therapeutic programme patients with cervicogenic headache are losing pains in short time, without a drug cocktail.

**International Danube
Symposium for Neurological Sciences and
Continuing Education**

in collaboration with

**Lublin Branch of Polish Neurological Society
Department of Neurology
Medical University of Lublin**

**Epilepsy and Headache Teaching
Course**

May 10-13, 2006

**Kazimierz Dolny
POLAND**

Opracowanie redakcyjne: Sylwia Pociupany, Jadwiga Sławińska-Iwańczuk
DTP: Paweł Kaniuk

W książce zamieszczono streszczenia nadesłane przez autorów referatów.

Copyright by Wydawnictwo Czelej Sp. z o.o., Lublin 2006

Lublin 2006

Wydawnictwo Czelej Sp. z o.o.
20-807 Lublin, ul. Czeremchowa 21
tel. (081) 743 77 66, fax (081) 534 77 88
E-mail: wydawnictwo@czelej.com.pl
www.czelej.com.pl