CORRESPONDENCE

Cluster Headache: Clinical Features and Therapeutic Options

by Dr med. Charly Gaul, Professor Dr med. Hans-Christoph Diener,
Dr med. Oliver M. Müller in volume 33/2011

Pansinusitis Possible

In our opinion, the paragraph on diagnostic evaluation and differential diagnosis of cluster headache is lacking any mention of the possibility of the patient's having acute or latent pansinusitis.

The authors assume that the posterior hypothalamus has a key role in triggering the headache. It is well known that the region of the nasal sinuses—frontal sinuses, ethmoidal sinuses, sphenoidal sinus, and maxillary sinuses—is closely connected to the trigeminal nerve. The instillation of 10% procain solution into the nose—effective owing to a local anesthetic block of the sphenopalatine ganglion—requires prior differential diagnostic evaluation of possibly latent pansinusitis, especially sphenoidal sinusitis.

The authors include in the treatment modalities for acute cluster attacks the inhalation of oxygen through a close-fitting mouth-nose mask. This is interesting, but we miss a theoretical explanation of the effects of oxygen inhalation. We also wish to point out that the effect of oxygen inhalation under hyperbaric conditions in a pressure chamber may in theory be rather more effective, since only this approach increases partial oxygen pressure in the cerebrospinal fluid cavities and in the cerebrum, consistent with the gas laws.

For migraine, success stories have been published in the literature, for cluster headaches, however, there have been only individual observations

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Prof. Dr. med. habil. Hans Lamm
Lister Krankenhaus (HBO), Hannover, Germany

Dr. med. Manfred Peter Müller-Kortkamp
Soltau, praxis@mueller-kortkamp.de

Conflict of interest statement

The authors declare that no conflict of interest exists.

In Reply:

We thank the correspondents for their letter, which enables us to draw attention to a misunderstanding. In our view, otorhinolaryngeal evaluation is not required in patients with cluster headache and typical symptoms.

In contrast to the many descriptions of secondary cluster headache among pathological findings in the pituitary region, hardly any literature exists for sinusitis as the trigger of symptoms resembling cluster headache. By contrast it has been reported—and this is consistent with our own clinical experience—that 23% of patients with cluster headache were initially incorrectly diagnosed with sinusitis (1). In fact, treatment with intranasal application of lidocain has a secondary role compared to treatment with nasally or subcutaneously administered triptans, which are more effective. Moreover, we require cerebral MRI imaging in cluster headache, and extensive pathological findings in the Sinus sphenoidalis would thus be detected.

The mode of action of oxygen in acute cluster attacks has not been ultimately clarified. It has been shown, however, that oxygen inhalation is rapidly effective in stopping cluster attacks (3). Patients are usually free of pain within 15 minutes in 78% of attacks (compared to less than 20% inhaling “placebo” ambient air). Data on the effectiveness of hyperbaric oxygen treatment were collated in a Cochrane review (4) and showed no advantage of hyperbaric oxygen over oxygen inhalation. In our opinion it can be concluded that hyperbaric oxygen is not required in the treatment of cluster headache and that the mechanisms mentioned by Lamm and Müller-Kortkamp do not have an important role.

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Dr med. Charly Gaul
Essen University Hospital, Clinic for Neurology, University of Essen and Duisburg, Germany
Director of the The West German Headache Center, Charly.Gaul@gmx.de

Dr med. Oliver M. Müller
Essen University Hospital, Clinic for Neurology, University of Essen and Duisburg, Germany

Conflict of interest statement

Dr Gaul has received honoraria for participating in an advisory board from Desitin and Allergan. He has received honoraria in the context of a publication from Boehringer Ingelheim. He has received travel and hotel expenses and honoraria for speaking from Berlin Chemie, MSD, and Allergan. He has been reimbursed for conducting commissioned clinical studies from MSD, Novartis, Complén Health, CoLucid Pharmaceuticals, and Bial. Dr Müller has received financial funding from St. Jude Medical and Medtronic for a patients' information forum for cluster headache. He has also received travel and hotel expenses from both companies.