HEADACHE CAUSED BY ARTHRITIS OF THE CERVICAL SPINE

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Arthritis and its allied conditions, (myositis, fibrositis, fascitis and tenosynovitis, involving the bones and attachments of the cervical spine and base of the skull) produce a type of cephalalgia that often causes considerable diagnostic and therapeutic difficulties. This form of headache occurs almost as frequently as ocular and migraine headaches but it has not been appreciated to the same extent because it is attributed so often to other etiological factors. Diagnosis must be made largely from the history. Fortunately, this is quite characteristic in most cases and is as typically diagnostic as the true migraine syndrome.

The headache invariably begins in the occiput but has a tendency to spread upwards and forward into the temporal regions as it becomes more severe. If the patient is able to critically analyze the onset, the pain will really be placed in the cervical muscles with a feeling of stiffness and soreness, especially of the attachment of the trapezius muscle to the skull. Of extreme diagnostic importance is the tenderness of this tendon attachment. The headaches occur periodically at first, lasting three to four days, a trifle longer than the usual migraine headache. There is a tendency to have long sieges of constant headache which may become a permanent daily headache. In a great majority of patients the headache comes on early in the morning and usually wakens them from sleep.

Most patients notice the relation of the headache to exposure to drafts, such as riding in the back seat of a car, sitting in an air-cooled movie theater, and following wetting of the hair, especially if there is also a draft on the head while wet. Drying the hair with dryers often brings on the headache. Another common cause is anything that will cause tenseness of the muscles of the neck for a long period of time, such as driving a car for long distances, sewing, stenographic work, etc. If there is an associated eye muscle error, focusing the eyes for long periods of time is doubly liable to cause the muscles of the neck to be more tense.

The indirect cause, such as drafts, wet hair, and eye strain, sometimes occurs the previous day and is frequently overlooked unless attention is directed to this and then the relationship usually can be recalled. Sometimes, even the removal of a small amount of protection from cold, such as when a man has his hair cut, is enough to cause this myalgic type of headache. Crepitus frequently accompanies the headache and is audible when the head is turned from side to side. Flexing the head forward and stretching the neck muscles increase the pain. Frequently the patient exhibits a characteristic motion of bending the

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head backwards and, with the palm of the hand, stroking the back of the head with a downward movement towards the neck. This usually gives some relief. Many patients have learned that heat and massage will give great relief. As a rule, there is no associated nausea and vomiting.

The headache occurs mostly in middle aged people who are approaching the osteo-arthritic age group but occasionally some patients in the early twenties are seen. In such patients, there is more possibility of an infectious process being present whereas in most patients the arthritic process seems to be of the metabolic type related to osteo-arthritis. If the patient is over 50 years of age, there usually is fairly marked roentgen evidence of this type of arthritis in the cervical spine. A history of arthritic pains in either location, especially the lower back, knees, and shoulders, is further confirmation of the nature of the occipital headache.

There will be minor variations in different cases but there always will be enough salient features on the basis of history alone to separate this type of headache from the great group of cephalalgias.

When the headache persists for long periods of time or if it eventually becomes constant, it can be a major cause of disability. In persistent cases, intracranial lesions are frequently suspected and this incurs great expense and suffering in efforts to seek the etiology.

Due to the frequent association of hypertension and osteo-arthritis in the same patient, the headache is frequently attributed to hypertension. I do not mean to imply that there is a causal relationship between hypertension and osteo-arthritis. They both are degenerative diseases of age and both occur more commonly in the older age group, especially in more obese individuals.

If this type of headache can be so easily recognized from the history alone, and possibly a simple examination of the cervical region, what other examinations are indicated to help in the solution? The investigation should first be directed along the usual lines for arthritis. Obvious foci of infections should be removed but the fallacy of considering osteo-arthritis as an infectious disease and attempting to treat it as such cannot be emphasized too strongly. Chemical and metabolic studies are more important. An increased glucose tolerance, suggestive of a mild diabetes, sometimes is present and is most helpful in the dietary management.

A low basal metabolic rate is the rule and again a clear indication for therapy that is most beneficial. In selected cases, the blood uric acid should be studied. Studies of the gastrointestinal tract, especially for colonic and biliary stasis, are often helpful in outlining a successful therapeutic regimen. Achlorhydria may afford an excellent clue.

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Examination of the eyes should never be omitted in any headache and should be done in this type although in reality it is not a true headache. Refractive errors may be a factor but of great importance is a careful measurement of the muscle balance. The muscles are definitely unbalanced in a very high percentage of cases.

It might be said then that this headache is therefore strictly an ocular headache but there is too much evidence that the eyes act only as an aggravating factor in focusing strain on the cervical muscles and determining the site of election for the arthritic process.

Since the treatment of periodic headaches has been so notably aided by allergic management, the question often comes up concerning the advisability of studying these patients from an allergic viewpoint. We have been disappointed in the results of allergy studies in this type of headache and no longer advise such studies unless the patient is a proved allergic individual in other respects.

One of our patients formerly had definite migraine with nausea, vomiting, and unilateral frontal headaches. This type of headache ceased and the typical arthritic headache developed. Foods that formerly brought on the sick, bilious headache would also precipitate the occipital headache but avoiding these foods would not prevent other causes from bringing on the occipital headaches. Caution, of course, usually dictates that these patients should have a spinal puncture to rule out the many causes for headache over the diseases of the central nervous system. Eventually, however, one gains almost enough confidence in clinical judgment to forego this expensive and at times incapacitating study (postspinal puncture headache).

Roentgen examination of the cervical spine may, as mentioned before, reveal an osteo-arthritic process but its absence does not affect the diagnosis when all the other evidence is positive. Treatment should be both preventive and palliative. All causes of excessive fatigue should be eliminated as far as possible. Care should be taken to avoid drafts. This may be done by wearing a wool covering over the back of the neck when exposed to drafts, especially during sleep. Eye strain should be avoided and muscle errors corrected as far as possible by exercises, glasses and muscle operations. When the patient knows of definite causative factors, a small amount of acetyl salicylic acid at bedtime will often prevent the headache. If the headache develops, heat and salicylates administered early will often give quick relief; if delayed, they frequently are futile. Heat and massage, especially the more constant type, are of utmost value. General arthritic measures, such as a low carbohydrate diet with increased vitamins, especially vitamin B, a reduction in weight if obese, anticonstipation measures, and mild salines in certain cases, are all helpful and useful measures. We have

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observed some help from cholegogues. Dessicated thyroid should be given in tolerance doses. Cincophen even should be used in some of the more obstinate cases. Care should be taken in the administration of this drug however. The improved forms of physiotherapy offer the most help to these patients. Orthopedic measures such as continued head traction are occasionally necessary.

The prognosis is entirely in relation to the frequency and severity of the headaches and the ability of the patient to undergo treatment—just as in any case of arthritis.

In conclusion, there is a very common, very typical type of headache due to arthritis of the cervical spine which is frequently misdiagnosed as being due to other causes and therefore is not adequately treated from its true etiological nature.

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