Letters

Acupuncture for migraine reduces bowel activity

Sir: During a study at this hospital into the efficacy of acupuncture in the treatment of migraine and other headaches (Loh, Nathan, Schott and Zilkha J. Neurol Neurosurg Psychiatry, in press), two of the 48 patients assessed reported unexpected diminution of bowel activity.

The first case was a 46-year-old woman who suffered from frequent migraine attacks for 20 years which had responded poorly to numerous medications. Since childhood (and for many years before her headaches began) she had had loose motions which she passed up to five times a day with considerable flatulence. She had never passed blood or slime and had had little abdominal pain. She had been taking up to ten tablets of codeine phosphate 15 mg daily for over 15 years, and in the past had also taken kaolin preparations. She was treated with six sessions of acupuncture over six months, with needling of painful neck and shoulder muscles and the first dorsal intersosseous muscles. There was little improvement in her headaches, but sometime during the course of the first three sessions of acupuncture, she noticed a considerable change in her bowel habit. She now opened her bowels once or twice per day and occasionally not at all and her motions were less fluid; she felt very well and had reduced her codeine phosphate intake to two tablets daily. Follow-up over two years, during which time she had six further acupuncture treatments over the initial few months, showed her headaches had not altered appreciably but improvement in her bowel habit and decrease in her codeine phosphate consumption had continued.

The second case, a 50-year-old man, had had drug resistant migraine for 25 years with weekly attacks of tingling in the limbs and impaired focusing, followed by bifrontal headaches with nausea, diarrhoea and vomiting. Throughout his life he had opened his bowels daily and had had no gastrointestinal symptoms other than those accompanying the migraine attacks. He was treated with needle acupuncture to the tender muscle points in the neck and above the right shoulder, receiving five treatments over three months with great benefit. After the first treatment he noticed a marked change in his bowel habit, with passage of hard faeces every four or five days. This alteration persisted for some months, during which time he was prescribed Normacol granules. Whilst his bowel habit gradually returned to its former pattern, he has remained almost free from headaches for three years.

These two patients clearly associated the diminution of their bowel activity with commencing acupuncture treatment. It is unlikely that the two events were unrelated in view of the long history of stable bowel habit, and not surprisingly this apparent effect of acupuncture was unexpected by these patients who were attending for treatment of a different complaint. It is also evident that though acupuncture seems to have induced this reduction of bowel activity, there was no correlation between such an effect and efficacy in treating the headache.

The observations that in humans electroacupuncture results in increased β-endorphin levels in venous blood of normal individuals and an increase in CSF β-endorphin in patients with pain, and that naloxone reverses acupuncture analgesia indicate that the effect of acupuncture may be due to the release of endogenous opioids. Apart from central effects, opiates also exert a local inhibitory action on the gastrointestinal tract where opiate receptors abound, and the recent report that naloxone reverses chronic idiopathic constipation probably due to a local action provides an important corollary to the present observations. Of interest is that the first patient markedly reduced her codeine intake, perhaps suggesting that acupuncture had induced a local change whereby endogenous opioids replaced exogenous opiates. A number of further aspects suggest themselves for investigation including an assessment of gut opioid receptors in patients with abnormal bowel activity and in migraine sufferers, and a systematic study of acupuncture treatment in patients with the irritable bowel syndrome and similar conditions.

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References

Lingual epilepsy: a case report of an unusual expression of focal cerebral discharge

Sir: The reported incidence of epilepsy with intracranial meningiomas varies from 17% to 68%. It is generally accepted that the majority of epileptogenic tumours occur in the centroparietal region and the presence of focal somatosensory and somatomotor seizures strongly suggests the presence of a neoplasm particularly if there are post-ictal pareses, adverse attacks, and Jacksonian march. We report a female patient whose convexity meningioma manifested itself by a disturbance of lingual movements. Initially they were felt to reflect an emotional disorder and treatment with Valium was followed by a complete remission. When the patient stopped taking Valium the lingual movements recurred. Further evaluation led to the correct diagnosis.

A 63-year-old right handed individual presented with the history of peculiar lingual sensations and movements. She described them in a dictation during her post-operative convalescence. “In March of 1979 a strange sensation occurred in my mouth....the tongue seemed to swell, larger and larger and, after this...the tongue started to shake violently......I couldn’t feel my teeth or the sides of my mouth....It lasted for perhaps five minutes and then relaxed......My doctor put me on Valiums. 3 per day, 2 mgs. each for three months......After the three months I stopped the Valiums and again I had a seizure......It was just a strong shaking of the tongue......These seizures occurred at least twice every month......Most of them......were mild......In March of ‘80 I had a very violent seizure......Oh, I might add, I always had a warning of a seizure coming by the right side of my tongue would become sensitive and after that
the... shaking of my tongue would occur... But the very last seizure I had was March '80 where without warning the tongue went into violent shaking and my mouth also went into violent shaking and my mouth twisted to the left side of my face... I went to the mirror and saw that my mouth was still twisted to the left side and remained that way for several minutes... Now, during all these seizures... not at any time did my tongue leave my mouth... When they were severe it was impossible for me to talk. If they were mild... the words could be slurred."

On specific questioning she described the first attacks as beginning with a sensation of swelling and enlargement of her tongue, followed by a dysesthetic oral mucosal sensation. Subsequently clonic movements of the tongue ensued along with a sense of dysphagia for saliva and an inability to talk or vocalize sounds. During her later attacks the onset was characterised by a numbness on the right side of the tongue followed by clonic lingual movements. During her last attack she had both adversive movements of her head to the right and persistent twisting of her face to the left as a Todd's phenomenon. Skull radiographs were negative. An interictal EEG indicated left cerebral dysfunction with temporal and frontal accentuations and a degree of bilateral dysfunction. The CT scan showed a uniformly enhancing low convexity post-Rolandic lesion consistent with meningioma, and mild cerebral atrophy (fig). Left carotid angiography demonstrated a tumor blush arising from a branch of the middle meningeal artery. At craniotomy a convexity meningioma with its dural pedicle was removed. Recovery was uneventful and no further seizures occurred.

We believe our case represents a unique example of a simple partial seizure disorder. Though abnormal lingual movements may appear from a variety of causes such as our patient's meningioma certainly represents the irritative focus for her epileptic symptomatology. Spread of the discharges resulted in the clonic lingual movements. The adversive head movements possibly indicated involvement of Foerster's area 6aβ and the inhibitory disturbance of speech along with the Todd's phenomenon of the right lower facial musculature involvement of Broca's area.

Other instances of abnormal lingual movements have been clearly documented. The buccolingual-masticatory syndrome may be a sequel to the use of neuroleptic drugs. Darting lingual movements in tardive dyskinesias have been described as the "fly catcher's tongue" and when the tongue alternately pushes against the buccinator muscles the movements have been termed the "bon bon" sign. Darting tongue movements may occur in degenerative diseases of the basal ganglia such as Huntington's disease and be indistinguishable from those seen in tardive dyskinesia. "Jack-in-the-box tongue" is seen in chorea, "Trombone tremor" of the tongue may exist in general paresis and a coarse lingual tremor has been described in chronic alcoholism. Parkinsonism may present a slow rhythmic tremor of the tongue which subsides on voluntary exertion.

Focal dystonias such as the oromandibular syndrome and laryngo-pharyngeal dystonia include abnormal lingual movements as part of the larger clinical presentation. Tics and myoclonias exclusively confined to the tongue are rare. Complex tics involving suction, mastication, deglutition and phonation have been associated with lingual movements that have been described as "licking tic" and "chewing tic". "Glossal tic" has been associated with general paresis. Lingual myoclonus has been described as part of a constellation of irregular myoclonus of the palate and face in one of three sibs all of whom suffered myoclonic symptomatology. A recent study indicated that spontaneous involuntary disorders of movement having a predominantly orofacial distribution can be a feature of severe chronic schizophrenia even when the illness was not modified by neuroleptic drugs. However, abnormal lingual movements have not been specifically associated with anxiety states or hysteria.

Epileptic foci certainly may give rise to motor or sensory symptoms either of a focal or progressive (for example, Jacksonian) type. Surprisingly few instances of exclusive involvement of the tongue in such discharges have been described. Gowers' and Penfield and Jasper mention the existence of this form of focal epileptic discharge. In one instance Penfield indicates that the sense of swelling of the tongue could be produced by post-central stimulation at the time of surgery. In another case he noted that tingling of the tongue might be produced by stimulation of either the Rolandic region or from the secondary sensory area. Cushing in 1909 demonstrated lingual movements and a choking sensation in a patient upon stimulation of the post-central gyrus during craniotomy. We offer this report as a unique example of focal epileptic discharge.

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Letters

Epileptic pain: a temporal lobe focus
Sir: Pain as a manifestation of epilepsy is most unusual. When described it has often been associated with a structural lesion in the parietal lobe. We recently encountered a 30-year-old man who had suffered paroxysms of left facial pain for eleven years; a diagnosis of trigeminal neuralgia had been made and he had been treated accordingly with anticonvulsants. He responded to treatment with carbamazepine and phenytoin. The true nature of his pain was established when he was admitted for elective posterior fossa exploration and microvascular decompression of the trigeminal nerve.

In July 1982 a 30-year-old man was admitted for microvascular decompression of the left trigeminal nerve. His symptoms had begun eleven years prior to this and a diagnosis of trigeminal neuralgia had been made. He responded to treatment with carbamazepine and phenytoin. The pain always came on during early sleep and would waken him. The pain was sharp, usually confined to the left cheek but occasionally radiating behind the left ear. The duration of each paroxysm was variable and could last for fifteen seconds, and was occasionally associated with twitching of either the left side of the face or the left leg. He also admitted to frequent brief episodes of unpleasant taste, although he denied any episodes of déja vu, jamais vu, olfactory hallucinations or episodes of loss of consciousness. As both carbamazepine and phenytoin had been commenced simultaneously, it was uncertain whether two anti-convulsants were required to control the symptoms. The phenytoin was reduced; this was followed by increasingly frequent attacks of nocturnal left facial pain which on most occasions were followed by a typical tonic-clonic seizure. The EEG showed repetitive focal sharp and slow wave discharges in the right mid-temporal region. During one recording he fell asleep and experienced a typical episode of his left facial pain which was followed by a brief tonic-clonic seizure. Phenytoin was re-introduced with the subsequent control of symptoms. A CT scan performed both with and without contrast was normal.

In 1901 Gowers in his review of three thousand cases of epilepsy wrote "sensations referred to the head preceded fits in 90 cases...local pain may stimulate neuralgia". Thus in his experience epilepsy was associated with pain in 1% of patients. Russell reviewed 266 patients with focal epilepsy and found pain as the aura in only six (2.2%) whilst in a further case pain was preceded by a focal motor seizure. Details of the site of pain and underlying pathology were not discussed in his article. In the majority of patients with epileptic pain there is a structural abnormality. Of 20 patients (including the present case) in the literature, only two suffered from idiopathic epilepsy. In a further two the cause of epilepsy was not stated whilst tumour (eight), stroke (five), trauma (two) and cysticercosis (one) caused epilepsy in the remainder. 1, 5-10

Penfield on the basis of cortical stimulation experiments stated "the fact that only 11 times out of well over 800 responses did the patient use the word pain to describe a cortical sensation, probably indicates that pain had little if any cortical representation". Ten years later, however, Penfield together with Kristiansen reported two patients who described pain as the initial sensory phenomena. Both patients had their lesion in the precentral gyrus and electrical stimulation at this site reproduced the aura. Wilkinson however felt that epileptic pain was of localising value indicating a lesion in the parietal lobe. Where enough details were provided a parietal lobe abnormality was present in 12 of the cases. In two the proposed site of the origin of the pain was not stated whilst in a further four the epilepsy occurred in patients who had suffered a hemiplegia and the EEG had revealed a mid-hemispheric focus on each occasion. In York's patient without a structural abnormality the EEG revealed ictal activity in the right central region. The present case however showed a right mid-temporal focus. Although trigeminal neuralgia and tonic-clonic seizures have been described in association with multiple sclerosis, 1 the absence of any other evidence after eleven years makes this diagnosis unlikely. This is the first instance, to our knowledge, in which epileptic pain has been associated with a focal EEG abnormality in the temporal lobe and thus pain associated with epilepsy is not necessarily a localising feature of parietal lobe lesions.

The characteristics of epileptic pain as described in 20 cases are that it may be either localised to the contralateral face or limbs rarely to the genitals or it may be diffuse. The pain may begin in one area but subsequently spread to other parts of the body as the electrical activity spreads across the cortex. 7 Epileptic pain is typically brief, lasting only seconds but may persist for some minutes, and it is almost invariably associated with either focal or generalised seizures; however it is possible that patients suffering from epileptic pain may not have been recognised in the absence of more obvious evidence of seizure activity. In those cases where treatment was discussed epileptic pain responded well to anti-convulsant therapy.

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References

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