

Trigeminal neuralgia—a presenting feature of facial leprosy

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Accepted for publication 14 December 1992

Summary Trigeminal neuralgia is a well recognized clinical entity. However, it has not been reported to mimic leprosy or vice versa. Of the 3 cases reported here, 2 initially presented with neuralgic symptoms similar to that seen in trigeminal neuralgia and later developed borderline lesions on the face. The 3rd case demonstrated a tingling sensation along with firm and palpable supraorbital nerve (a branch of trigeminal nerve), and a very early skin lesion on the face pointed to the need to consider neuritic type leprosy before concluding the final diagnosis of a disease like trigeminal neuralgia which calls for a different therapeutic approach.

Introduction

Many workers support the theory that leprosy starts with the appearance of an indeterminate patch on the skin and then progresses to the other serious forms or types.¹ Neuritic leprosy is the only type which appears without passing through this stage. However, some recent reports say that even neuritic cases have been seen to develop borderline skin lesions in the course of the disease.⁶

Various syndromes associated with nerve lesions have been considered or compared with leprosy, either at the time of making a differential diagnosis, or they have been known to occur during the course of leprosy.

In the first group, scalenus anterior syndrome, cervical rib syndrome and meralgia paraesthetica are the commonest.

In the second group the most frequently occurring clinical entity is lagophthalmos due to the involvement of the facial nerve trunk or its branches supplying the orbicularis oculi.⁷ Less frequently occurring cranial nerve involvements are bulbar palsy type syndrome⁸ and the loss of taste sensation due to the combined effects of facial, trigeminal and glossopharyngeal nerves.⁹ Melkersson syndrome, a rarely seen clinical entity which is manifested by a recurrent facial paralysis, recurrent and eventually permanent facial

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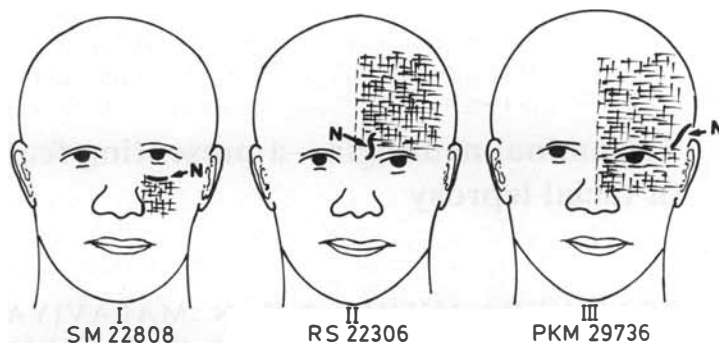


Figure 1. Location of facial lesions in different patients.

(especially confined to lips) oedema and less constantly, plication of the tongue, has also been described, and this could be due to leprosy, at least in the Far East.¹⁰

Trigeminal neuralgia occurs in the elderly and middle aged, and consists of an excruciating paroxysm of pain in the gums, lips, cheek and chin, and, very rarely, in the distribution of the ophthalmic division of the 5th nerve. The pain seldom lasts more than a few seconds but may be so intense that the patient winces. The paroxysms frequently occur day and night for several weeks at a time. The cause of this clinical entity is unknown, although occasionally it is a manifestation of multiple sclerosis or herpes zoster. Very rarely a tumour or vascular anomaly in posterior fossa causes irritative lesion in the nerves, which is symptomatically indistinguishable from that of trigeminal neuralgia.

The text-book picture of trigeminal neuralgia does not include paralysis of muscles supplied by the 5th nerve.

Case reports (Figure 1)

1. S.H., a 25-year-old Muslim male, complained of tingling in a small area of his left cheek, intermittently for 3 months. In the area of irritative symptoms no visible patch or nerve thickening was noticed. Slit skin smear for *M. leprae* and lepromin reaction was negative. A provisional diagnosis of Trigeminal neuralgia was made. At the time of the 2nd examination (12 months later), a raised infiltrated patch with anaesthesia along with thickened infraorbital branches on the same side was noticed. A clinical diagnosis of BT leprosy was made and later confirmed by histology of the lesion.
2. R.J., a 27-year-old Hindu male, under treatment for neuritic leprosy, had developed a cutaneous lesion 12 months before and had paraesthetic symptoms (tingling) on pressing the left side of the forehead. On examination the supraorbital branch of the left trigeminal nerve was found palpable and firm. On pressing this the patient complained about the tingling. There was a faint hypopigmented patch on the left side of the forehead which gradually became more demarcated. The patient responded to a course of multidrug therapy supplemented with oral steroids. Histology of the lesion confirmed BT leprosy.
3. P.K.M., a 30-year-old Hindu male, presented with a sudden onset of an erythematous

patch on the left side of the forehead, which covered the area demarcated by hairline above and nasolabial fold below, midline of the face, medially and laterally, and most part of the left eyebrow laterally. On the same side the zygomatic branch of facial nerve was thick. This patient gave a history of having suffered with trigeminal neuralgia 8 years ago which had recovered partially without treatment. He had paralysis of the muscles which are supplied by the motor division of the trigeminal nerve.

He was treated as a case of cerebro-vascular abnormality. After 2 months the lesion was found to be erythematous, firm, smooth and oedematous. Its margins sloped. The left ear was red, slightly itchy and edematous. The cornea was dry and corneal sensations were decreased. There was lacrimation, sialorrhoea and rhinorrhoea, but the patient was unable to feel the discharge due to anaesthesia, indicating sensory loss on the left side. Sensation for modalities like temperature and touch were reduced and impaired in the area innervated by ophthalmic and maxillary divisions of the trigeminal nerve. However, impairment of these modalities in mandibular division was doubtful. Taste sensations were partially affected though the left side of the oral cavity was anaesthetic.

The muscles supplied by the left trigeminal nerve were wasted. Muscle power in masseter, pterygoid and temporalis were graded 3, 2 and 1, respectively. There was no weakness in the muscles supplied by the facial nerve.

In slit skin smears from facial lesions and ear lobules, *Mycobacterium leprae* were absent. Blood, urine analysis, skull X-ray and CAT scan were within normal limits. Tests for VDRL and LE cells were negative.

The patient was diagnosed as suffering with borderline tuberculoid leprosy.

Discussion

In the 1st case a provisional diagnosis of trigeminal neuralgia was made. Even in the 2nd, paraesthetic symptoms suggested the same diagnosis but there were enough signs to diagnose leprosy. In the 3rd case, even though the first diagnosis of trigeminal neuralgia had been made 8 years before, there is enough information to support the belief that those manifestations could have been an early presentation of leprosy.

Trigeminal neuralgia is a sensory affliction and impairment of motor functions is not documented. In leprosy neuritis it is common to find damage to the motor functions resulting in paresis or complete paralysis of the muscles supplied by the affected nerve.

Neurological manifestations of preclinical leprosy deserve more attention. As early as 1964, Cochrane had observed that the early lesion may be preceded by vague paraesthetic or neurological symptoms.¹¹ To quote him, 'I am convinced that the first definite evidence of disease is seen in the appearance of an area of anaesthesia. This definite sign may be preceded by vague subjective symptoms such as tingling.' He further observed that the time gap between the onset of the 1st sign and diagnosis of leprosy can vary from 2 to 20 years. A recent study by us (under communication) also supports the above views.¹²

The cases reviewed here give enough information to support the view that trigeminal neuralgia-like symptoms may be due to leprosy, and before diagnosing a patient as suffering from trigeminal neuralgia, leprosy should also be considered, particularly if the patient has a family history of leprosy or he or she lives in a leprosy endemic area.

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Lepr Rev (1993) **64**, 255–258

Névrálgie du trijumeau—un élément caractéristique de la lèpre de la face

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Résumé La névrálgie du trijumeau est une entité clinique bien connue. Cependant, on n'a pas rapporté d'observation où elle imite la lèpre ou vice-versa. Des trois cas rapportés ici, deux présentaient au début des symptômes névrálgiques similaires à ceux que l'on observe dans la névrálgie du trijumeau, et ont développé par la suite des lésions borderline de la face. Dans le troisième cas, une sensation de picotement accompagnée d'un nerf sus-orbital ferme et palpable—une branche du nerf trijumeau—et un début de lésion cutanée de la face évoquent une lèpre de type névritique qu'il faut envisager avant de porter un diagnostic de maladie du genre névrálgie du trijumeau qui demande un traitement différent.

La neuralgia trigeminal—una característica diagnóstica de la lepra facial

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Resumen La neuralgia trigeminal es una entidad clínica bien reconocida. Sin embargo, no se ha informado que imita la lepra, ni viceversa. De los tres casos informados aquí, dos inicialmente presentaron síntomas neurálgicos similares a las que se observan en la neuralgia trigeminal, y posteriormente desarrollaron lesiones dudosas en la cara. En el tercer caso, una sensación de hormigueo y una zona firme y sensible entre la supraorbital, es decir una rama del nervio trigeminal, y una lesión muy temprana de la cara, indica la necesidad de pensar en lepra de un tipo neurítico, antes de decidir en un diagnóstico de una enfermedad como neuralgia trigeminal, que requiere un tratamiento terapéutico diferente.