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Fractured genial tubercles

by

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Introduction

The genial tubercles are normally small; however, hypertrophy is not uncommon, especially in atrophied edentulous mandibles. Isolated fracture of hypertrophied genial tubercles is a rare event that may present with pain and oedema in the floor of the mouth.

Case report

A 77-year-old Caucasian male was admitted to hospital for investigation of dysphagia which had been present for 5 months. He also complained of severe pain and swelling in the floor of the mouth, which had commenced suddenly about a week prior to his admission, and was accentuated by *movement of the tongue and by swallowing.*

Examination revealed an edentulous patient with a slightly mobile, tender, hard, midline swelling (2 cm. × 2 cm.) in the floor of the mouth, adjacent to the lingual surface of the mandible.

An occlusal view radiograph (Fig. 1) showed prominent genial tubercles, with the appearance of a fracture line passing through the proximal part of the tubercles.

To confirm the diagnosis, the mass was removed *via* a midline floor of mouth approach. Histological examination of the fragments showed trabecular bone, fibrous tissue and skeletal muscle, with cartilage being laid down in the fibrous tissue. These appearances were compatible with a healing fracture.

The patient made an uneventful post-operative recovery with resolution of pain and haematoma. One month after discharge from hospital he had normal tongue function and was able to wear his lower dentures without discomfort.

Further investigation of the patient's long-standing dysphagia, including pharyngo-oesophagoscopy, revealed gastro-oesophageal reflux for which the patient is currently receiving drug therapy.

Discussion

The genial tubercles are sharply-defined projections from the lingual surface of the mandible from which the muscles genio-hyoid and genio-glossus take their origin (Sicher, 1965). These muscles are further derived from the adjacent surface of the mandible and possibly the floor of the mouth (Maw and Lindsay, 1970).

A review of the medical and dental literature revealed four previous reports of isolated genial tubercle fractures, and one article advocating conservative management of genial tubercle fractures sustained with concomitant fractures of the symphysis menti (Maw and Lindsay, 1970). In two cases (Reifman, 1969; Shipman, 1976), the genial tubercles were surgically exposed and removed. In the remaining two cases (Goebel, 1978; Smyd, 1957), the fractures were treated conservatively. In all cases there were good results, with complete resolution of haematoma and return of tongue function.

It would appear that fracture of the genial tubercles is an occasional occurrence, presenting as pain and oedema in the floor of the mouth and associated with a palpable bony swelling which may interfere with the wearing of lower dentures.

If radiographs demonstrate the fracture beyond doubt, it would seem reasonable to adopt a conservative approach and anticipate full return of function. If there is any doubt as to the diagnosis, surgical exploration of the area is a straightforward procedure with a low morbidity, permitting histological examination.

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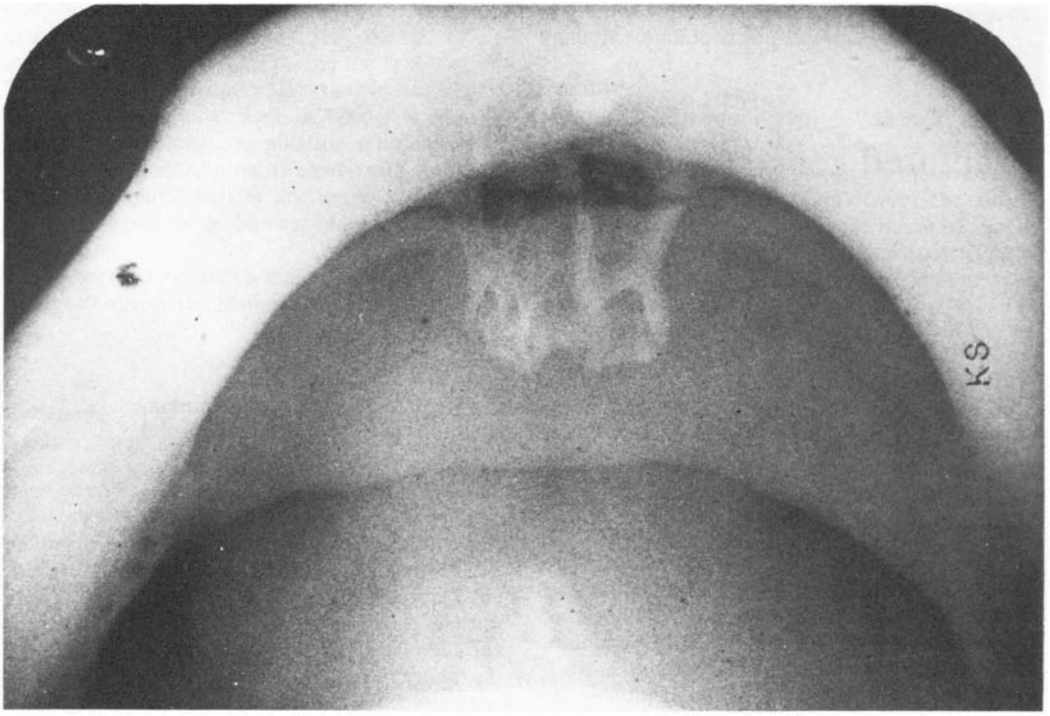


FIG. 1
Occlusal view radiograph showing fracture of hypertrophied genial tubercles.

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