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Salivary megalith with a sialo-cutaneous and a sialo-oral fistula: a case report

D. PAUL, M.S., D.L.O., S. R. CHAUHAN, M.S.

Abstract
A rare case of a salivary megalith with a sialo-cutaneous and a sialo-oral fistula in an elderly man is presented. A brief review of the literature is made.

Key words: Salivary gland calculi; Fistula

Introduction

Although a sialolith with an oral fistula and stone protruding into the oral cavity (Hubar *et al.*, 1990) as well as a sialolith with a cutaneous sinus (Iqbal *et al.*, 1992) have been reported separately we have not come across any reference in the literature to sialolithiasis presenting with a sialo-cutaneous and a sialo-oral fistula simultaneously.

A rare case (probably the only case so far) of a salivary megalith presenting with a sialo-cutaneous and a sialo-oral fistula in an elderly man is presented.

Case report

A 45-year-old man was admitted to the E.S.I. Hospital on 22nd March, 1993 complaining of a discharging sinus on the right side of the neck following the rupture of a painful swelling which had been present for eight years.

Examination revealed a salivary fistula in the right upper anterolateral aspect of neck (Figure 1). There was a firm non-tender swelling measuring 5 × 3 cm in right submandibular region. Peroral examination revealed a 1 × 1 cm gap in the floor of mouth in the vicinity of right submandibular salivary gland through which a stone was protruding into the oral cavity (Figure 2).

A roentgenogram of neck (Figure 3) displayed an irregular radio-opaque shadow in the region of right submandibular salivary gland measuring 4.5 × 2 cm. A sialogram indicated a blocked right Wharton's duct.

Under general anaesthesia, the gap in the floor of mouth was widened and the calculus (stone) was pulled out through the opening with counterpressure from the cutaneous fistula. The stone was found to be impacted and came out in pieces; otherwise the stone was not fragile (Figure 4). The cavity lodging the stone was thoroughly curretted and the sialo-cutaneous fistula was excised. The size of the stone was 4.5 × 2 cm, the dehydrated weight was 4.230 gm and it was 45 mm long. It was a hard stone and did not have any foreign body nucleus.

Chemical analysis of the stone revealed calcium phosphate, calcium carbonate, very little organic matter and no oxalate.

The cutaneous fistula healed and the patient was discharged on 16 April 1993. Subsequent follow-up for six months was uneventful.

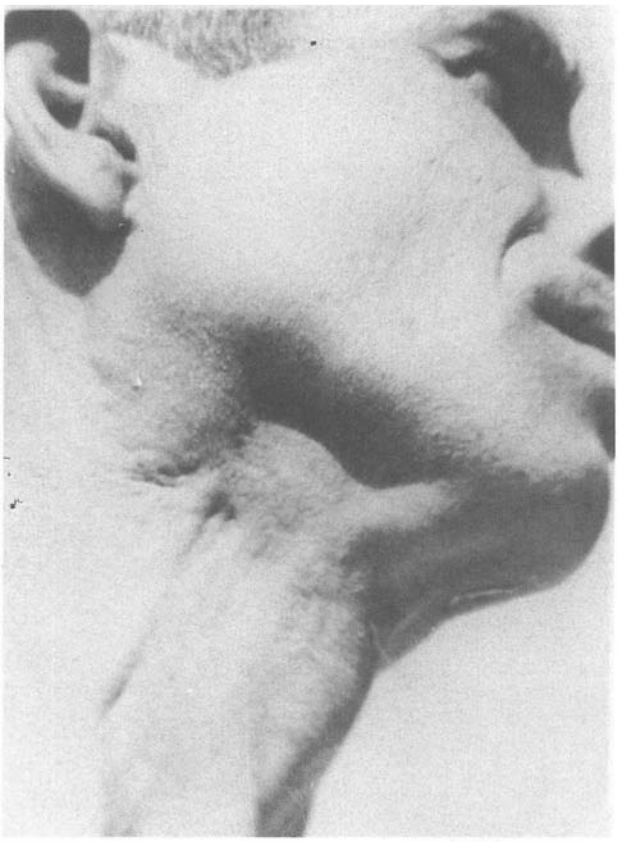

FIG. 1
Sialo-cutaneous fistula and submandibular gland swelling.

From the Department of Otolaryngology, E.S.I. Hospital, New Delhi, India.
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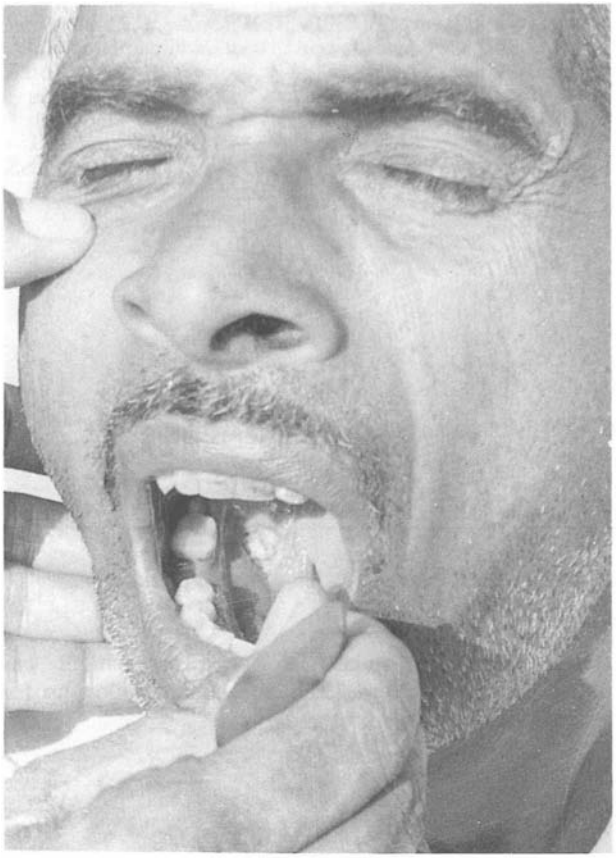

FIG. 2
Stone protruding into oral cavity.

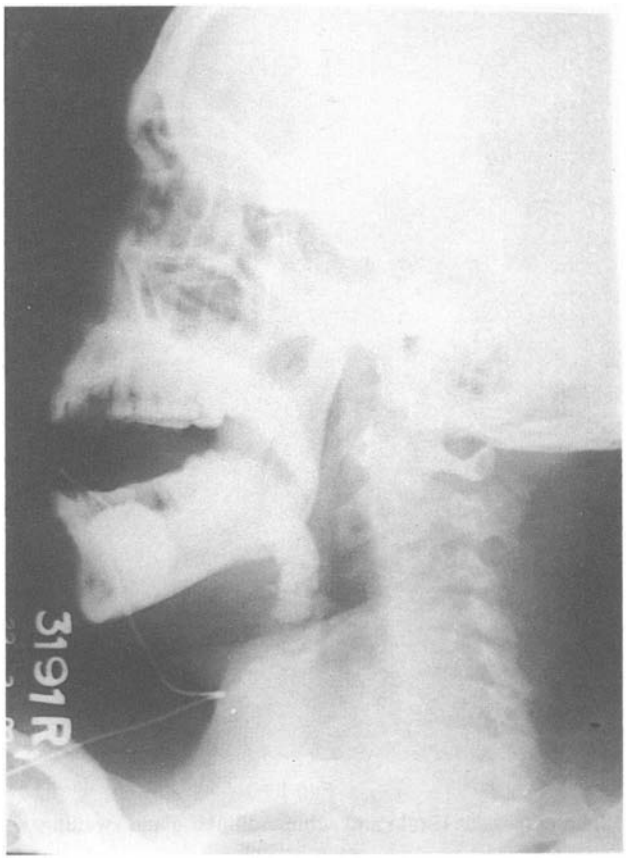

FIG. 3
Roentgenogram showing stone.

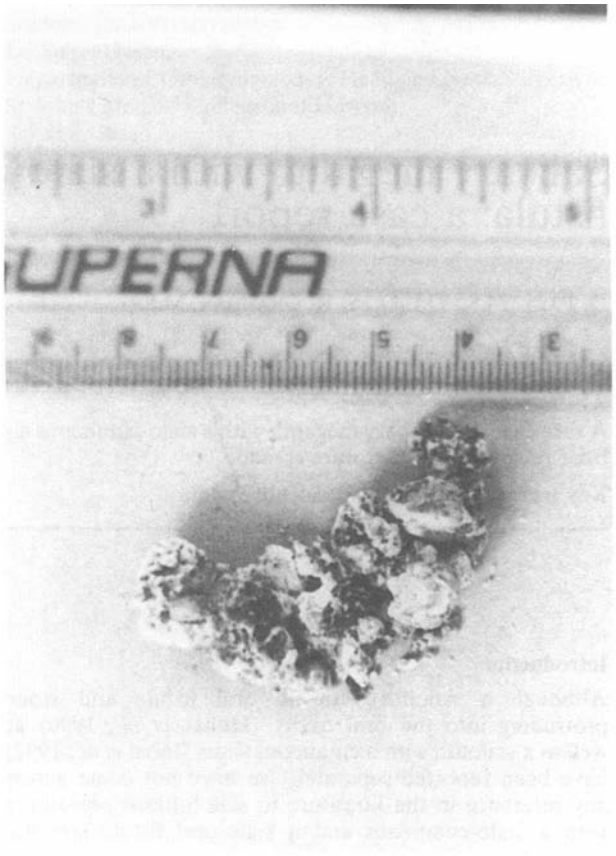

FIG. 4
Photograph of megalith.

Discussion

Sialotithiasis is a disease of middle age affecting men more frequently than women. Common symptoms include pain and swelling in the gland usually associated with eating. Calculi are commonly brownish or yellowish in colour, may be laminated and amorphous in structure. The size may vary from one millimetre to several centimetres. The largest stone reported measured 55 mm in length. (Raksin *et al.*, 1975) and the heaviest weighed 17.5 gm (Hubar *et al.*, 1990). Akin and Esmer (1991) also reported a giant glandular calculus measuring 45 × 30 mm. (In our case the stone was 45 mm in length and 4.230 gm in weight).

Our patient had a sialo-cutaneous and a sialo-oral fistula with a large glandular stone protruding into the oral cavity. After extensive review of the literature we found that although salivary megaliths protruding into the oral cavity have been occasionally reported, the presence of a sialo-cutaneous fistula in addition appears to be very rare. However here it was a possibility that a sialo-cutaneous fistula with an impacted stone had obstructed the submandibular duct and sialo-oral tract resulting in stasis, infection and subsequent rupture through the skin. A sialo-oral fistula may be due to pressure necrosis.

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Address for correspondence:
Dr Dharam Paul,
Head of the Department of ENT,
E.S.I. Hospital, New Delhi-110015,
India.

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