Sublingual Salivary Stone
A Case Report

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Abstract:

The sublingual salivary glands are paired sets of major salivary glands. Sialolithiasis is a frequently occurring disease of the salivary glands. However sublingual salivary stone are not that common. Exact etiology of stone formation in the gland is unknown. Different hypothesis have been submitted about etiology of salivary gland calculi such as mechanical, inflammatory, chemical, neurogenic, infectious, foreign bodies etc. Bacterial infections also play an important role in calculi formation. A 44 years old male presented to us with a swelling in the floor of the mouth associated with pain for 2 years. During intra oral examination of the patient two firm to hard masses opposite the canine and premolar region of the floor of the mouth was demonstrated (Figure 1). Intraoral bimanual palpation revealed the presence of two hard formations over the floor of mouth. A dental radiograph (Figure 2) confirmed that the swelling was radio opaque structure in the floor of the mouth. There were two small sialoliths. We removed the sialoliths surgically under local anaesthesia. Post operative and follow up course was normal.

Introduction

Sialolithiasis is a common disease of the salivary glands with an incidence of 1.2 %[1]. Males are affected more frequently than the female patients.[1] Submandibular gland affected mostly with sialoliths (80%-95%) followed by Parotid gland (5%-20%), Sublingual gland and minor salivary glands are the least affected (1%-2%).[2] Most of the stone formed within the duct rather than in the gland.[3] Mucin rich alkaline saliva contributes to the formation of the sialoliths.[3] Sialoliths measuring >15 mm in any dimension or weighting >1 g are defined as 'giant sialolith'.[4] Diagnosis of sialolithiasis can be done by ultrasonography, radiography and in particular of sialo-magnetic resonance imaging.[5] In case of non radio opaque stone (40% of parotid and 20% of submandibular stones) sialography/sialoendoscopy may be required to locate them.[1] Sialolithiasisis characterized by pain and inflammation and in some occasions with an infection of the affected gland.[3]

Case report

Mr. E 44, years old male hailing from Rajshahi presented with the complaints of a swelling in the floor of the mouth for 2 years associated with pain. During intra oral examination of the patient, two firm to hard masses opposite the canine and premolar region of the floor of the mouth was noticed. The patient was unaware of the swelling until it was associated with pain. Intraoral bimanual palpation revealed the presence of two hard swellings approximately 6-8 mm in length, in the anterior aspect of the floor of mouth opposite the canine and premolar region (Figure 1). The entity was not adherent to the underlying structures. The oral mucosa was normal in texture. A dental radiograph (Figure 2) confirmed that the swelling was radio-opaque structure in the floor of the mouth. On the basis of clinical and radiological findings, a diagnosis of sublingual sialolithiasis was made. Two sublingual sialoliths were removed from the lesion under local anesthesia (Figure3). Post

operative period was uneventful. Follow up till six months was normal.

Figure: 1

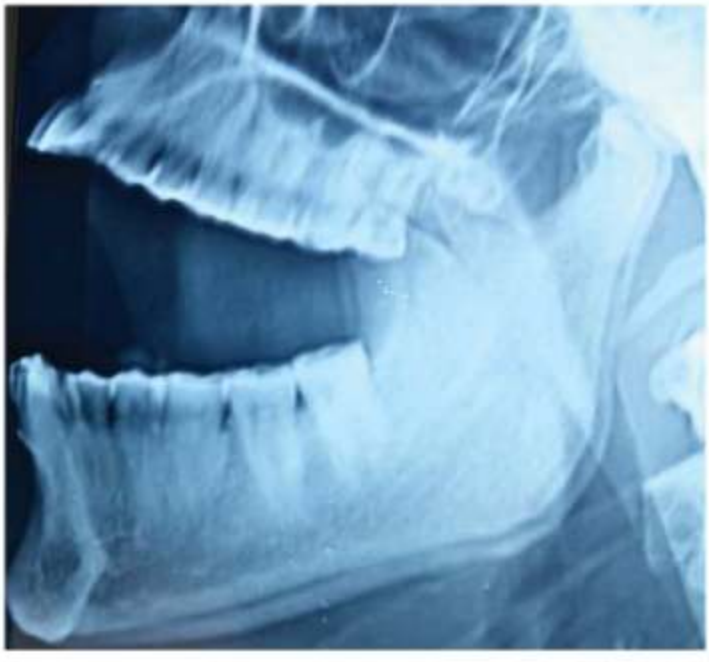

Figure: 2

Figure: 3

Discussion

Sialolithiasis is a frequently occurring disease of the salivary glands. This is presented with pain and inflammation and in certain cases, infection of the affected gland may also be present[3]. Patients usually present with the complaints of pain and swelling of the respective gland[6]. Patients with sialolithiasis present with a painful swelling (59%) painless swelling (29%) and only pain (12%)[7]. They complains of recurrent salivary colic and spasmodic pain upon eating.[7] Pain and swelling gets worse during salivary stimulated condition like meal, sight and hunger so called "mealtime syndrome".[8] Different hypotheses have been postulated about etiology of salivary gland calculi: mechanical, inflammatory, chemical, neurogenic, infectious, foreign bodies, etc. In calculi formation bacterial infections plays an important role.[6] Though the exact etiology is unknown, it is considered that the formation of sialolith is due to deposition of mineral salts around an initial nidus consisting of salivary mucin, bacteria or desquamated epithelial cells.[3] Predisposing factor of sialolith formation is stagnation of salivary flow, high alkalinity and increased calcium content[3]. Poor oral hygiene and delayed teeth may act as etiologic risk

factors.[6] Sialoliths may be single or multiple.[6] There are various methods available for management of sialoliths depending on the gland affected and location of the stone[1]. The treatment of choice for sialolithiasis is the surgical removal of the Sialolith by an intraoral approach.[9] We decided to remove the sublingual sialoliths surgically under local anesthesia. However the newer treatment modalities such as extracorporeal shock wave lithotripsy (ESWL) and more recently endoscopic intracorporeal shock wave lithotripsy (EISWL) are effective alternatives to conventional surgical removal[1].

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