REV ESP CIR ORAL MAXILOFAC. 2014;xxx(xx):xxx–xxx

Revista Española de Cirugía Oral y Maxilofacial

www.elsevier.es/recom

Clinical report

Extraoral surgical access for removal of intraparotid giant sialolith in young patient. A case report

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ARTICLE INFO

Article history:
Received 25 February 2014
Accepted 13 July 2014
Available online xxx

Keywords:
Salivary gland stones
Computerized tomography
Parotid diseases
Adolescent
Oral surgery

ABSTRACT

Sialolithiasis is one of the most common diseases of salivary glands. Sialoliths mainly develop in the submandibular gland with few cases described in the parotid and sublingual glands. They are more common in adults between the third and fourth decades of life, and can affect the elderly and rarely children and adolescents. In most cases, they are located in the ducts, but parenchymal location is unusual. Clinical signs of sialolithiasis are well known; however, they may appear in atypical sites, making it difficult to locate and diagnose them precisely. In these cases, the use of complementary imaging examinations, such as computerized tomography, is critical to delimit the lesion and determine the treatment plan. Therefore, the description of this clinical case of a parotid sialolith, with atypical location, in a 17-year-old patient, that was surgically removed by extraoral access after determining its correct location by using computerized tomography imaging is relevant and important.

Abordaje quirúrgico extraoral para la extracción de sialolito gigante intraparotídeo en un paciente joven. Presentación de un caso

Palabras clave:
Cálculos en glándulas salivales
Tomografía computarizada
Patología parotídea
Adolescente
Cirugía oral

RESUMEN

La sialolitiasis es una de las enfermedades más frecuentes de las glándulas salivales. Los sialolitos pueden formarse en la glándula submandibular, y son pocos los casos que se describen en las glándulas parótida y sublingual. Son más comunes en los adultos entre la tercera y la cuarta décadas de la vida, y pueden darse en los ancianos y, excepcionalmente, en los niños y adolescentes. En la mayor parte de los casos, se encuentran en los conductos, y la localización parenquimatosa es poco habitual. Los signos clínicos de la sialolitiasis son bien conocidos; sin embargo, pueden aparecer en localizaciones atípicas, lo cual dificulta su localización y diagnóstico precisos. En tales casos, el uso de técnicas de imagen

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http://dx.doi.org/10.1016/j.maxilo.2014.07.012
1130-0558/

complementarias, como la tomografía computarizada es crucial para delimitar la lesión y determinar el plan de tratamiento. Así pues, la descripción de este caso clínico de un sialolito parotídeo con una localización atípica, en un paciente de 17 años, que se extrajo con un abordaje extraoral tras determinar su localización exacta mediante tomografía computarizada tiene interés e importancia.

Introduction

Salivary gland stones are a salivary gland disease characterized by the formation of calculi or sialoliths inside the ducts or in the glandular parenchyma itself.[1–3] Although it is a relatively common disease, in patients under 18 years, it accounts for only 3% of cases. Regarding its location, it may affect major and minor salivary glands, and most of cases involve the submandibular gland (83–94%) and less frequently the parotid (4–10%) and sublingual glands (1–7%).[1,2,4]

Etiology and mechanism of formation of salivary calculi are poorly known.[4–7] There are several hypotheses for the formation of sialolith, and all of which are related to anatomical irregularities of the conduit or its partial obstruction, salivary composition, infectious process and eletrocoidal and ionic imbalance.[1,4–8]

Regarding diagnosis, in addition to the clinical examination, it is important to use complementary methods, including conventional radiographs, sialography, MRI, ultrasound and computerized tomography to determine more precisely the location of salivary calculi and correct treatment plan.[7,9] Additionally, some characteristics of sialolith such as size, location, number, relationship to the surrounding tissues (adhesive, impacted, mobile) and the presence of inflammation and/or infection should be considered when choosing the best form of treatment, whether it is surgical or not.[1,10] Due to the rarity of this disease in the parotid gland, especially considering its appearance in a young patient and its atypical extraductal location, which was only confirmed after computed tomography imaging, and its quite considerable size, the description of this clinical case is relevant and important.

Case report

17-Year-old patient (T.P.V.) with melanoderma was referred by his orthodontist for extraction of teeth 38 and 48 and a possible supernumerary tooth present in the left posterior mandibular region. Panoramic radiograph showed the presence of a well delimited, hyperdense, rounded structure near the mandibular angle, with approximately 10 mm in diameter, overlapping the bone structures and the mandibular canal (Fig. 1). During the anamnesis, the patient reported no discomfort, pain or swelling. On clinical intraoral examination, no abnormality was observed. Milking maneuver was performed in the parotid gland and the salivary flow was found to be normal and with no pus. However, on the extraoral examination, during palpation of lymph nodes and bidigital palpation of the cheek, it was observed the presence of a rounded, firm, mobile nodule, under the skin at the lateral region of the mandible angle on

Fig. 1 – Initial panoramic radiograph.

Fig. 2 – Initial extraoral clinical appearance.

the left side (Fig. 2). For a better assessment of the location and diagnostic hypothesis, it was performed a computerized tomography, which revealed the extra-osseous location of the lesion in the soft tissues laterally to the left mandibular angle (Fig. 3). The diagnostic hypotheses for such an alteration were sialolith and changed lymph node. During surgical planning, excisional biopsy was chosen, under local anesthesia, in an

Please cite this article in press as: de Carvalho Silva A, et al. Extraoral surgical access for removal of intraparotid giant sialolith in young patient. A case report. Rev Esp Cir Oral Maxilofac. 2014. http://dx.doi.org/10.1016/j.maxilo.2014.07.012