

Dermoid cyst of the floor of the mouth; Different treatment approaches

Ahmed Alyamani, BDS, DSc, CAGSOMFS, Dipl. ABOMS

Abstract

Dermoid cyst (DC) is a cystic form of teratoma. They are commonly presented in the midline of the floor of the mouth although they are found in other soft tissue locations. One hypothesis for their etiology is that they arise from entrapment of epithelial debris or rests during the midline fusion of the first 2 branchial arches. Excision of the dermoid cyst is often the treatment of choice. The extraoral approach is necessary when the cysts lie under the geniohyoid muscle causing deglutition and respiratory problems. On the other hand, the intra-oral approach is effective for the treatment of large lesions and led to very good cosmetic and functional results.

The different treatment approaches for two large DCs are presented, the extraoral approach was utilized for a patient who presented to the ER with respiratory problem while the intraoral approach was performed and led to good esthetic results without recurrence.

Keywords: Dermoid cyst, teratoma, extraoral approach, intraoral approach

Introduction and Literature Review

Dermoid cyst (DC) is one of the developmental anomalies in the soft tissue of the head and neck. It is a cystic form of teratoma. They are most often seen in young adults and can become unusually large with few symptoms.

Most commonly, they are located in the ovaries and sacral region. Seven percent of DCs occur in the head and neck region. The most common reported locations are periorbital, nasal, submental and suprasternal regions [1-4]. In the oral region, most DCs occur in the midline of the floor of the mouth, and they do not appear until they grow large enough or get infected. Rarely, they can be found in other areas beneath the oral mucosa such as jaw bone [5, 6]. Tuz et al, 2003 [7] presented a case of sublingual giant DC that enlarged rapidly during pregnancy manifesting deglutition and mild respiratory problems. The growth of a DC of the neck may be accelerated in pregnancy period and may ensue severe symptoms challenging both mother and fetus.

One hypothesis for their etiology is that they arise from entrapment of epithelial debris or rests during the midline fusion of the first 2 branchial arches. Sublingual DCs may develop above the mylohyoid, presenting in the floor of the mouth or below it, causing a submental or submaxillary mass [7]. Surgical approaches to large dermoid cysts in the

floor of the mouth have been performed with some variations. Intra-oral approach is the most useful for cosmetic appearance [8]; it is described for large midline dermoid cyst that lies above the mylohyoid muscle. The technique is easy and the mass can be enucleated completely without complications.

In this paper, we discuss the problem of DCs and report a life threatening situation arising from a DC and report the technique for intra-oral and extra-oral approaches.

Patients and methods

Patient 1:

A 22-year-old male presented to the emergency room at King Fahd Hospital, Jeddah, Saudi Arabia, complaining of breathing difficulties and inability to talk or eat, which he attributed to a large swelling in the front of the neck. He gave a history that he had this swelling since he was a child, and increased over the years. The patient was febrile, and had bilateral submandibular lymphadenopathy. Physical examination showed a large swelling involving the submental, submandibular and sublingual areas measuring 12x12 cm in diameter, freely movable, causing elevation of the floor of the mouth, and the tongue was elevated to the extent that the soft palate could not be visualized

Consultant and Assistant Professor
Oral and Maxillofacial Surgery Department
Dental School, King Abdulaziz University,
Jeddah, Saudi Arabia.