

An Epidermoid cyst of the upper lip in a completely edentulous geriatric female: A rare case with clinicoradiological report

Praveena Raman¹, P H Raghuram²

From ¹Senior Lecturer, Department of Oral Medicine and Radiology, Sathyabama Dental College and Hospital, ²Professor and Head, Department of Oral Medicine and Radiology, SRM Dental College and Hospital, Chennai, Tamil Nadu, India

Correspondence to: Dr. Praveena Raman, Lemon Dental, #4/3, Krishna Street, Vivekananda Nagar, Nesapakkam, Chennai - 600 078, Tamil Nadu, India. E-mail: drpraveena7@gmail.com

Received - 21 May 2020

Initial Review - 06 June 2020

Accepted - 17 June 2020

ABSTRACT

Epidermal cysts are intradermal or subcutaneous (non-odontogenic), developmental pathologies occurring in the head and neck region with an incidence ranging from 1.6% to 6.9%. They represent <0.01% of all oral cavity cysts. An epidermoid cyst presents as a slow-growing, asymptomatic mass, usually diagnosed only after they have reached a considerable size. Here, we present a rare case of a giant palpable mass in the upper lip in a completely edentulous geriatric female. This report highlights the clinical presentation, imaging findings, and differential diagnosis.

Key words: Epidermoid cyst, Dermoid cyst, Benign lesion of lip, Keratin

According to Shear (1974), the cyst is defined as “a pathological cavity having fluid, semifluid, or gaseous contents and which is not created by the accumulation of pus” [1]. Roser, in 1859, first described the epidermoid cyst. Epidermoid cysts are benign developmental cysts of the head and neck region [2]. It is also called as an epidermal cyst, epithelial cyst, keratin cyst, sebaceous cyst, milia, or epidermal inclusion cyst [3]. Epidermal inclusion cysts are the result of implantation of the epidermal elements and its subsequent cystic transformation. The term epidermoid cyst is used in the general context in that, irrespective of the source of the epithelium, the term persists. Milia merely represent miniature epidermoid cysts [3].

The term sebaceous cyst sometimes is used mistakenly as a synonym for both the epidermoid cyst and another cyst of the scalp known as a pilar, trichilemmal, or isthmus – catagen cyst. However, because both the epidermoid cyst and pilar cyst are derived from the hair follicle rather than the sebaceous gland, the term sebaceous cyst should be avoided [3,4]. Here, we present a rare case report of a giant plum size epidermoid cyst of the upper lip in a completely edentulous geriatric female. This interesting case may be of interest to clinicians.

CASE REPORT

An 83-year-old female patient came to the Department of Oral Medicine and Radiology, with a chief complaint of missing teeth for 40 years and the patient wanted to get them replaced. On asking regarding the plum size swelling on the upper lip, the patient gave a history of reddish-blue-colored swelling over the

left side upper lip region since birth. The patient also stated that the swelling was smaller in size, and later on, there was a steady increase in the size of the swelling for many years to attain the present size. No history of trauma to face was reported. Medical history revealed history of Type II diabetes mellitus for 30 years and the patient is under regular medications.

On extraoral examination, a single well-defined sessile growth, brownish-gray in color, was evident in relation to the upper lip region at the left side (Fig. 1a). It was roughly hemispherical in shape, approximately measuring 5 × 2.5 cm in dimension, extending superiorly about 0.5 cm from the ala of the nose, laterally extending up to the nasolabial fold, inferiorly about 0.5 cm below the commissure, medially 3 cm from the midline with well-defined margins extraorally. The skin over the lesion appeared to be shiny and pigmented with a punctum opening anteriorly (Fig. 1b). No visible pulsations were evident.

On palpation, all the inspector findings were confirmed. The lesion was non-tender, not warm, soft in consistency, fluctuant, non-compressible, and non-reducible. It was freely movable and was not fixed. No bruits or murmurs were heard in auscultation. Intraoral palpation revealed a single, well-defined hemispherical shaped swelling roughly measuring 1 cm × 1 cm in dimension, palpable at the left upper labial mucosa extending superiorly up to the upper labial vestibule in relation to 22, 23, inferiorly up to the margin of the upper lip and the skin, medially few cms from the midline, and laterally few cms from the angle of mouth. The swelling was soft in consistency, fluctuant, non-tender, not warmth, compressible, but not reducible with no secondary changes.

A provisional diagnosis of benign non-odontogenic cyst involving the left upper lip and completely edentulous was made. Differential

diagnoses included dermoid cyst, epidermoid cyst, neurofibroma, and hemangioma. Further investigations were made routinely under consent. As the patient had a chronic history of diabetes, blood investigations were done accordingly. Orthopantomogram revealed, completely edentulous arches, and the presence of a well-defined, oval-shaped soft tissue shadow, approximately measuring 4 cm×2 cm in relation to 22, 23, 33 (Fig. 2). Ultrasound examination revealed 2.9 × 2.8 × 2.3 cm size well-defined, thin-walled spherical cystic lesion showing homogenous internal echoes with no evidence of vascularity within the lesion (Fig. 3a). Magnetic resonance imaging revealed 2.9 × 2.8 × 2.3 cm size well-defined, thin-walled T1 and T2 fat sat homogenously hyperintense, T2 and STIR mildly hypointense spherical cystic lesion (showing homogenous internal echoes and mildly hyperdense in CT) with subtle blooming in gradient sequence with no evidence of obvious vascular channels in the wall or within the cystic lesion, no calcification or fat component (Fig. 3b).

Fine-needle aspiration cytology of the mass was done that yielded needle blocking scanty whitish material with blood. Smears prepared revealed mainly anucleated squamous cells against an amorphous background. As the patient was above 80 years with comorbidities, have been living with this swelling for years and the chief complaint for which the patient visited



Figure 1: (a) A well-defined sessile growth, brownish-gray in color in relation to the upper lip region at the left side, roughly hemispherical in shape approximately measuring 5 × 2.5 cm in dimension extending superiorly about 0.5 cm from the ala of the nose, laterally extending up to the nasolabial fold, inferiorly about 0.5 cm below the commissure, and medially 3 cm from the midline; (b) the swelling with an anteriorly placed punctum

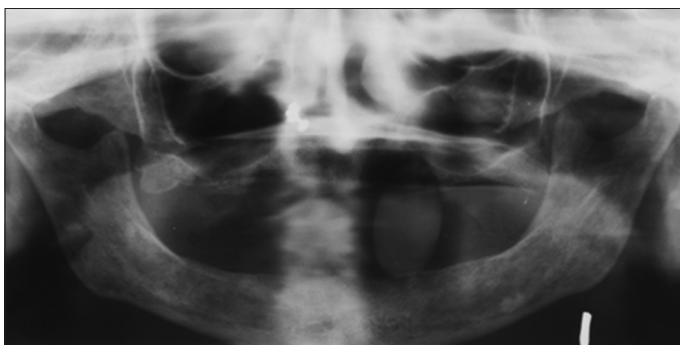


Figure 2: Orthopantomogram revealed completely edentulous with a well-defined, oval-shaped soft tissue shadow, approximately measuring 4 × 2 cm in relation to 22, 23, 33

was missing teeth, the patient was not willing for complete surgical excision of the lesion. Hence, a small incisional biopsy was done intraorally at the upper labial vestibule, which revealed a cystic cavity, lined with keratin flakes, and stratified squamous epithelium with prominent stratum granulosum filled and desquamated keratin, surrounded by a connective tissue capsule showing a chronic inflammatory response, confirming the diagnosis of an epidermoid cyst. The patient is under regular follow-up every week as a complete denture is advised to the patient regarding the treatment plan.

DISCUSSION

Epidermoid cysts are cystic malformations lined with squamous epithelium. Most of the cases have been noticed in the ovary and in testicles (80%), with a particular predilection for the areas where embryological structures merge themselves. The head and neck account for about 1.6–6.9% and within the oral cavity, they represent just 0.01% of all the cysts of the oral cavity [5]. The head and neck sites affected most frequently with cutaneous cysts were the scalp (34%), neck (18%), periorbital area (17%), cheeks and lips (16%), periauricular area (9%), and nasal area (6%) (including forehead). Rare cases have been reported in the tongue, lips, uvula, temporomandibular joint dermal graft, intradiploic, intracranial, and intraosseous within the mandible and maxilla; and buccal mucosa. This is consistent with our case that occurred at an unusual location involving the left lateral upper lip region.

An epidermoid cyst presents as a slow-growing asymptomatic mass, usually diagnosed only after they have reached a considerable size [5,6]. It is suggested that these cysts are derived from the epithelial remnants from the closure process of the first and second bronchial arches [7]. According to the review of literature, no definition of the giant epidermal cyst has been established. Since the size of epidermal cysts normally varies from 1 to 5 cm in diameter, it has generally been accepted that the giant epidermal cyst is defined as an epidermal cyst ≥5 cm in diameter [8].

Epidermoid cysts can be either primary (congenital) or secondary cysts. Primary lesions are choristomas that involve displacement of the epithelial elements during the closure of the

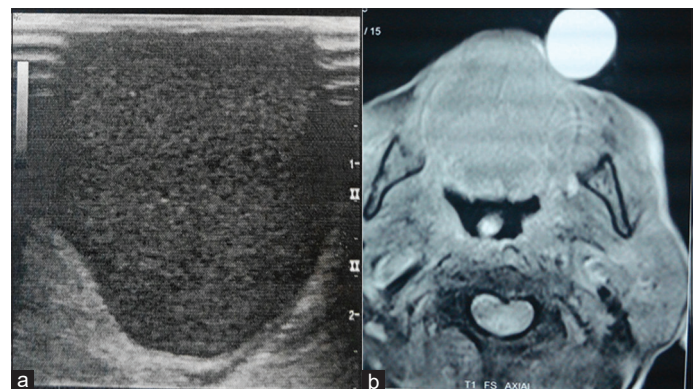


Figure 3: (a) Thin-walled spherical cystic lesion showing homogenous internal echoes in an ultrasound; (b) magnetic resonance imaging showing T2 fat sat homogenously hyperintense

neural groove or other epithelial fusion lines between the third and the 5th weeks of gestation. Secondary epidermoid cysts result from post-traumatic implantation of the surface epithelium [9]. Although the epidermoid cyst rarely discloses malignancy, isolated cases of premalignant and malignant conditions (Bowen's disease, Paget's disease, squamous cell carcinoma, and mycosis fungoides) have been found in their walls.

Ikeda and Ono presented a case stating that basal cell carcinoma originates from an epidermoid cyst in which nests of basal cell carcinoma connected with the epidermoid cyst and partially replaced the cyst wall [10]. Lopez-Rios *et al.* described a case in which squamous cell carcinoma had evolved in the wall of the conventional epidermoid cyst [11].

Infectious processes, as odontogenic infection, buccal space infection, and masseteric space infection, are unlikely in this case because the mass had attained considerable size without constitutional symptoms such as malaise or fever and there was no history of trauma. A primary malignant process is very doubtful due to the lesion's size, cystic homogeneity, and lack of nodal involvement. A lipoma would tend to be yellowish and nodular. A vascular lesion such as a hemangioma or lymphangioma is also unlikely for these are usually lobulated and have an irregular surface. Cystic hygromas are more common in the posterior triangle of the neck and are soft, fluctuant masses. The most frequent oral site is in the anterior two-thirds of the tongue. An incorrect diagnosis could result in inappropriate therapy.

Surgical enucleation is an effective treatment for these kinds of lesions. Marsupialization has also been proposed as a treatment alternative in cases of giant cysts. An untreated epidermoid cyst can achieve large proportions, causing discomfort during mastication, swallowing, and speaking. However, there is no universally accepted protocol pertaining to the timing of surgical intervention. Since these cysts are mainly congenital, they can appear at any phase of life. Hence, the time when they grow significantly large to cause functional disability such as dysphagia, dysphonia, and dyspnea is generally the right time for surgical intervention. Our patient was asymptomatic for years, and hence surgical removal was thought to be unethical, and moreover, our patient was not willing to remove the mass. Hemorrhage and hematoma formation are the only complications following surgical intervention which could lead to significant swelling and edema [12].

Most of the epidermoid cysts do not cause problems or need treatment. However, if they are a cosmetic concern or they rupture or become infected, they are usually surgically removed. If a cyst becomes infected, a course of antibiotics may be needed. Epidermoid cysts are almost always noncancerous, but in rare cases, they can give rise to skin cancers. Since this occurs so seldom, epidermoid cysts usually are not biopsied unless they have unusual characteristics that suggest a more serious problem.

However, in older patients who have had an epidermoid cyst of relatively longer duration on the face or scalp with a recent change in characters like the increase in size and ulceration, carcinoma should be suspected. Thus, our geriatric patient having a giant plum size, asymptomatic epidermoid cyst of the upper lip is an important addition to the existing literature.

CONCLUSION

Epidermal cysts are non-odontogenic, developmental pathologies occurring in the head and neck region. They are slow-growing, asymptomatic mass, usually diagnosed only after they have reached a considerable size. The management of epidermoid cysts over the facial region like elsewhere in the body is the same; however, cyst over the facial region should be done more cautiously as the face being the esthetic zone, demands a good scar.

REFERENCES

1. Shear M. Developmental Cyst of Head and Neck Region. Cyst of Oral and Maxillofacial Region Shear. 4th ed. Oxford: Blackwell Publication; 2007. p. 181-3.
2. Damle MV, Irani DK, Himanshi NL. Epidermoid cyst of the floor of the mouth. Case report. Bombay Hosp J 2002;44:267-70.
3. Rajendran R. Developmental Disturbances of Oral and Paraoral Structures. Shafer's Textbook of oral Pathology. 6th ed. Uttar Pradesh: Elsevier Publication; 2009. p. 67-9.
4. Neville BW. Developmental defects of the oral and maxillofacial region oral and maxillofacial pathology. In: Oral and Maxillofacial Pathology. 3rd ed. Noida, Uttar Pradesh: Sunders Publication; 2009. p. 32-3.
5. Mohta A, Sharma M. Congenital oral cysts in neonates: Report of two cases. Oral Surg Oral Med Oral Pathol Oral Radiol Endod 2006;102:e36-8.
6. Jham BC, Duraes GV, Jham AC, Santos CR. Epidermoid cyst of the floor of the mouth: A case report. J Can Dent Assoc 2007;73:525-8.
7. Correa MS, Fonoff RD, Ruschel HC, Parizotto SP, Correa FN. Lingual epidermoid cyst: Case report in an infant. Pediatr Dent 2003;25:591-3.
8. Arizpe SR, Candiani JO. Giant epidermoid cyst: Clinical aspect and surgical management. J Dermatol Surg Oncol 1986;12:734-6.
9. Ahmed RA, Eltanamly RM. Orbital epidermoid cysts: A diagnosis to consider. J Ophthalmol 2014;2014:508425.
10. Ikeda I, Ono T. Basal cell carcinoma originating from an epidermoid cyst. J Dermatol 1990;17:643-6.
11. Lopez-Rios F, Rodriguez-Peralto JL, Castana E, Benito A. Squamous cell carcinoma arising in a cutaneous epidermal cyst: A case report and literature review. Am J Dermatopathol 1999;21:174-7.
12. Zachariades N, Skoura-Kafoussia C. A life threatening epidermoid cyst of the floor of the mouth: Report of a case. J Oral Maxillofac Surg 1990;48:400-3.

Funding: None; Conflict of Interest: None Stated.

How to cite this article: Raman P, Raghuram PH. An Epidermoid cyst of the upper lip in a completely edentulous geriatric female: A rare case with clinicoradiological report. Indian J Case Reports. 2020;6(6):349-351.

Doi: 10.32677/IJCR.2020.v06.i06.022