

THE DERMOID CYST OF THE ANTERIOR FLOOR OF THE MOUTH WITH REGARDS TO A CLINICAL CASE

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Abstract: The dermoid cyst is a cyst development that occurs most frequently in young adults, sometimes even at birth. It is due to the cystic alteration of residual epithelial inclusions at the junction of the pharyngeal arches along the midline. Therefore, it can basically be located anywhere on the midline, where structures are formed by the union of the pharyngeal branches. The dermoid cyst is typically located at the floor of the mouth, in the midline, sometimes also occurring paramedian on this level. The treatment of these cystic formations is strictly surgical. In this paper we present the case of a 20-year old young male, who requested our services and presenting this pathology which involved a specialized diagnostic and therapeutic approach.

INTRODUCTION

The oral dermoid cyst develops above the mylohyoid oral muscle, in the frontal oral floor, and may range in size from a few millimetres up to 10-12 cm. The cystic formation is slow growing, asymptomatic, leaves the loose covering mucous unchanged and exposes the frenulum of the tongue, revealing by its transparency the yellowish cyst contents.(1)

The dermoid cyst has a firm-elastic consistency, is mobile in the adjacent areas and leaves pressure marks. If it is perforated, viscous content of a grey yellowish colour is eliminated which can lead to superinfection. By increasing its volume, it might deform the anterior oral floor and push the tongue up- and backwards, inducing eating, phonation and even breathing disorders.(2)

With regard to its pathology dermoid cysts contain, as the name suggests, structures of the dermis. The cystic membrane is thick, made up of keratinized stratified epithelium, and may also contain aberrant annexes of the skin, such as sweat or sebaceous glands. The cystic content encompasses a large amount of keratin and often also sebum.(3,4)

The differential diagnosis of dermoid cyst localized in the oral floor can be performed with:

- Sublingual ranula: is paramedian located and has characteristic clinical appearance and content, fluctuant consistency;
- Teratoid cyst: virtually clinical indistinguishable; indicative aspect: congenital in nature, consistency is firmer, sometimes can exhibit a strong / hard content to the touch;
- Cystic lymphangioma of the oral floor: is present at birth or in infancy, has frequently polycystic appearance, interesting superjacent soft parts, and contains a clear liquid or sero-hemorrhagic;

Suppurations of the sublingual area: shows characteristic suppuration signs, rapidly evolving, malaise;

- Sublingual gland tumours: located paramedian, they have firm consistency and are mobilizing with gland;(5)

The differential diagnosis of dermoid cyst located

below the plane mylohyoid muscle can be performed with:

- Suprahyoid ranula: fluctuant consistency during bimanual oral / cervical palpation, the ranula content is pushed from the lower into the upper compartment;
- Abscess of the submental area: presents characteristic signs of suppuration, with relaxed skin, shiny, flushing, rapid evolution, malaise;
- Submental adenitis: same character of suppuration, but looking circumscribed;
- Thyroglossal duct cyst: is mobilized in swallowing and tongue protrusion;
- Submental metastatic lymphadenopathy: the presence of malign tissue in the drainage area, firm consistency, rapid development, trend of infiltration and attachment to adjacent tissues.(6)

Dermoid cyst treatment is strictly surgical and consists of all its removal by oral or dermal approach, depending on the location. Removal is often difficult mainly due to the cystic formation extending to the base of the tongue, but also because of the adhesions it forms as it fuses with other sections, especially if it was superinfectious.

CASE REPORT

The 20-year-old patient visits the Bucco-Maxillofacial surgery ambulatory on January the 27th, 2015, accusing a painless deformation of the anterior floor of the mouth, which presented constant growth over the course of one year. The growth lately led to eating and phonation disorders.

The clinical intraoral and cervicofacial examination revealed the presence of a voluminous cystic formation (estimated diameter 7/4/4 cm), which deforms the submental and the anterior floor of mouth regions, loosens the covering mucus, displays the lingual frenulum, is asymptomatic and of elastic consistency (figure no. 1).

The bimanual extra-oral palpation revealed no laterocervical lymph nodes, only an intumescence in the submental region (figure no. 2).

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CLINICAL ASPECTS

Figure no. 1. Preoperative intraoral appearance- intumescence of the anterior floor of the mouth



Figure no. 2. Preoperative extra-oral appearance- submental intumescence



The general examination generated pathological signs: lymphocytosis 41,1%, mildly elevated MCHC 36,8g/Dl, monocytosis 12,9%, eosinophilia 6,2%. The electrocardiogram from January, the 28th, 2015 revealed no pathological signs and two days after the patient's admission the cystic formations are completely removed (figure no. 3). The surgical procedure was accomplished by sublingual incision on the median line of the anterior floor of mouth, lavages with antiseptic solutions, checking of the hemostasis after which it proceeding with suturing along the anatomical planes. The surgical specimen was sent to the Anatomic Pathology Department for histopathological examination to be carried out.

Figure no. 3. Macroscopic appearance of the removed dermoid cyst



The patient's postoperative evolution was favourable, with an edema remission in 4 days. The treatment consisted of: 5% glucose 500ml/day, Ringer's solution 500ml/day, ampicillin 1g, f.II/12h, Gentamicin 80mg, f.II/ single dose, Ketoprofen f.II/12h, Algocalmin f.III/day, Dexamethasone f.I/12h, Quamatel f.I/12h. The patient presented cardio-respiratory and hemodynamic balance, resuming a normal diet, normal appearance and colour of salivary secretion. After 10 days the suture threads were removed and the postoperative wound presented no dehiscence or inflammation (figure no. 4).

Figure no. 4. Postoperative wound 10 days after the removal of suture threads.



Histopathological examination reveals a cystic formation containing acids, showing no cellular atypia.

CONCLUSIONS

- Dermoid cysts are benign tumours of cervicofacial soft tissue, which can be located anywhere along the median line, where structures are formed by the union of pharyngeal arches.
- Differential diagnosis with teratoid cyst is nearly impossible to accomplish.
- The only treatment is surgical and consists in the complete removal of the cyst formation as well as in histopathological analysis, to confirm the diagnosis.
- In most cases there are no major operative or postoperative complications that can endanger the patient's life. The evolution becomes rapidly favourable.
- Sometimes, for the bigger specimens, it is necessary to implement a mixed approach: oral and cutaneous.
- Recurrences after complete removal are extremely rare.

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