All bite wounds are considered prone to tetanus.[16–18] The treatment protocol indicates tetanus toxoid reinforcement if its administration has been held in the past 5 years, and its administration history is unknown. The decision of instituting prophylaxis against rabies varies from one case to another, depending on individual circumstances surrounding the attack.[19,20] When the animal is known or captured, it is simpler; however, provoked attack and epidemiology of rabies in the region should be considered.[10,21]

In this report, when questioned about the victim's tetanus and against the animal's rabies vaccination, the family confirmed to be up to date with both. Moreover, the history of aggression indicates that the attack was provoked, because all occurred when the girl was playing with the animal while it was feeding. Considering this information, the decision of not instituting prophylaxis against tetanus and rabies was taken by the surgical team.

Another point that generates some discussion is about the most appropriate time for surgical approach. The delayed repair is the traditional approach, especially when the patient presents belatedly to the consultation.[22,23] However, for face lacerations, the primary repair provides better cosmetic and functional results. The primary closure is accepted by most authors.[24–26]

Advantages of primary closure include minimizing the need for epithelial migration, collagen deposition, and wound contraction; the wound reduces inflammation and infection and minimizes secondary defects and the need for corrections.[27] Because of wound bacterial contamination, the option is usually the delayed repair. However, the rates of infection associated with the primary closure of mammals bite are reported as less than 6%.[28] Furthermore, infections are more common in cases of delayed treatment.[4]

Considering what was observed in this report, it can be concluded that the composite graft derived from auricular helix is a safe option for reconstruction of nasal ala defects with compromised margins in pediatric patients when no conditions of reimplantation exist. The three-dimensional profile of this donor area, the auricular helix, makes it ideal for the reconstruction of this type of defect. However, the determination of a safe margin with dimensions that favors the viability of the graft still needs attention.

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Oropharyngeal Branchial Cyst in a Young Child

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Abstract: Second branchial cleft cysts are almost always located in the neck. Their presence in the oropharynx is extremely rare. An oropharyngeal branchial cyst in a 4-year-old child diagnosed by magnetic resonance and histopathology was presented. Anatomic location and pathological findings indicated the second branchial pouch origin. The cyst was excised transorally. Six months' follow-up of the child was uneventful and there was no recurrence.

Key Words: Young child, oropharyngeal branchial cyst, transoral excision

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Branchial cleft cysts, also known as lymphoepithelial cysts or branchiogenic cysts, usually present in late childhood or early adulthood. Most branchial cleft anomalies arise from the second cleft.[1] The classic location of second branchial cyst is anterior and deep to the sternocleidomastoid muscle at the level of the carotid bifurcation.[2] It can occur anywhere along the line from the tonsillar fossa to the supraclavicular area of the neck.[1] They can be differentiated from other oropharyngeal tumors by histopathologic presentation, imaging modality, and localization in the oropharynx.

In this study, a patient with oropharyngeal second branchial cyst was reported. The diagnosis was made by MRI and then histopathologically confirmed, and the cyst was excised transorally.

Patient Evaluation

A 4-year-old child presented to otorhinolaryngology clinic with a history of dysphagia and foreign body sensation in the throat. After physical examination, a mass was detected behind the right posterior tonsillar plicae. Oropharyngeal examination showed a gray-purple cystic tumor with a smooth surface (Figs. 1–4).

Magnetic resonance imaging showed hyperintense signals on T1- and T2-weighted images, and a well-defined lesion that measured 2.3 × 2.0 × 1.8 cm arose from behind the right posterior tonsillar plicae. No contrast enhancement with gadolinium was observed.

Complete excision was performed transorally under general anesthesia. No complications occurred. The histopathology revealed stratified squamous epithelium and respiratory epithelium with underlying lymphoid tissue.

At 6 months' follow-up, there was no recurrence.

DISCUSSION

The branchial apparatus consists of 6 paired mesodermal arches that are separated from each other by invaginations of endoderm on the inside known as pharyngeal pouches and externally by ectodermally lined branchial clefts.[3,4]

Three theories have been postulated to describe the etiology of internal branchial cysts. The first suggests that, because of the presence of subepithelial lymphocytes, the cyst is most likely derived from ectopic epithelial cells in the regional lymph node. The second theory, which is more widely accepted, suggests that the cysts are derived from remnants of the branchial apparatus. The third theory is that cysts originate from epithelial cells desquamated during repeated infections of the pharyngeal mucosa and reach regional lymph nodes through lymphatic vessels.[5]

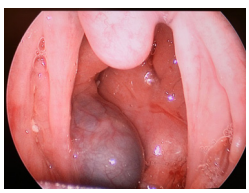

FIGURE 1. The cyst located at the right lateral pharyngeal wall extending to the nasopharynx (soft palate was suspended).

FIGURE 2. The cyst has smooth capsule and measured 2.3 × 2.0 ×1.8 cm.

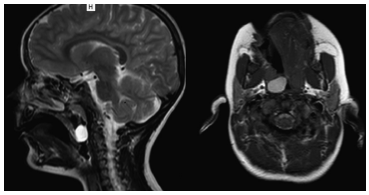

FIGURE 3. Sagittal T2-weighted image and axial T1-weighted image.

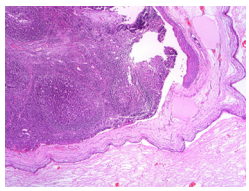

FIGURE 4. Branchial cleft cyst is lined by both stratified squamous and respiratory epithelium with underlying lymphoid tissue (HE, original magnification ×40).

The majority of branchial anomalies originate from the second branchial apparatus. They can result in a sinus, fistula, or cyst. Second branchial cleft anomalies can occur anywhere along the embryologic tract, from the neck to the tonsillar fossa,[3] with the majority occurring in the upper third of the neck.[6] The second branchial cleft cysts were classified into 4 types by Proctor.[7] Type I lies superficially on the anterior border of the sternocleidomastoid muscle and beneath the cervical fascia. Type II cysts, which are the most common, lie beneath the investing layer of the deep cervical fascia and are in contact with the great vessels. Type III cysts pass between the internal and external carotid arteries, and extend to the pharyngeal wall. Type IV cysts lie adjacent to the pharyngeal wall and medial to the great vessels.

MRI is the investigation of choice as it clearly differentiates the cyst from cystic hygroma, hemangioma, mucus retention cyst, lipoma, lymphoma, rhabdomyosarcoma, and other head and neck masses. The classical findings are well-defined cyst wall without contrast enhancement and hypointense T1 images and hyperintense T2-weighted images.[8] In our case, T1- and T2-weighted images were hyperintense because of subacute bleeding into the cyst.

In our patient, there was a prominent mass. Because of this, surgery was performed under general anesthesia and the mass was excised transorally. No complications occurred intraoperatively and in postoperative period. The histopathology revealed stratified squamous epithelium and respiratory epithelium with underlying lymphoid tissue. Histopathologically, second branchial cysts are lined by non-keratinizing stratified squamous epithelium (90%), ciliated columnar (respiratory) epithelium (8%), or both (2%). Lymphoid aggregates are scattered beneath the epithelium in a nodular or diffuse pattern and sometimes they have a prominent germinal center.[9]

In this patient, second branchial cyst was located in the oropharynx. This location is very rare in the literature. Second branchial arch anomalies should be kept in mind in the differential diagnosis of oropharyngeal masses.

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Correlation of Clinical Predictions and Surgical Results in Maxillary Superior Repositioning

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Abstract: This is a prospective study to evaluate the accuracy of clinical predictions related to surgical results in subjects who underwent maxillary superior repositioning without anterior-posterior movement. Surgeons' predictions according to clinical (tooth show at rest and at the maximum smile) and cephalometric evaluation were documented for the amount of maxillary superior repositioning. Overcorrection or undercorrection was documented for every subject 1 year after the operations. Receiver operating characteristic curve test was used to find a cutoff point in prediction errors and to determine positive predictive value (PPV) and negative predictive value. Forty subjects (14 males and 26 females) were studied. Results showed a significant difference between changes in the tooth show at rest and at the maximum smile line before and after surgery. Analysis of the data demonstrated no correlation between the predictive data and the surgical results. The incidence of undercorrection (25%) was more common than overcorrection (7.5%). The cutoff point for errors in predictions was 5 mm for tooth show at rest and 15 mm at the maximum smile. When the amount of the presurgical tooth show at rest was more than 5 mm, 50.5% of clinical predictions did not match the clinical results (PPV), and 75% of clinical predictions showed the same results when the tooth show was less than 5 mm (negative predictive value). When the amount of presurgical tooth shown in the maximum smile line was more than 15 mm, 75% of clinical predictions did not match with clinical results (PPV), and 25% of the predictions had the same results because the tooth show at the maximum smile was lower than 15 mm. Clinical predictions according to the tooth show at rest and at the maximum smile have a poor correlation with clinical results in maxillary superior repositioning for vertical maxillary excess. The risk of errors in predictions increased when the amount of superior repositioning of the maxilla increased. Generally, surgeons have a tendency to undercorrect rather than overcorrect, although clinical prediction is an original guideline for surgeons, and it may be associated with variable clinical results.

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Key Words: Vertical maxillary excess, Le Fort I, osteotomy, predictions

In the past, excessive development of the maxilla traditionally received less attention than did excessive mandibular development.[1] However, approximately 30% of patients who seek orthognathic treatment have a vertical increase in the lower third of the face. To correct the vertical discrepancy in patients with long faces, the maxilla must be repositioned superiorly with Le Fort I surgery. The orthodontic and surgical changes must be planned accurately before treatment to optimize case management and to increase the patient's understanding and acceptance of the recommended treatment.[2] Our ability to predict the outcome of any orthognathic procedure depends on the surgeon's ability to accurately reproduce the desired skeletal movements and on our understanding of the soft tissue changes associated with those movements.

In vertical maxillary excess, the key for evaluating the amount of maxillary superior repositioning is the tooth show. Furthermore, the main complaint of these patients is a gummy smile followed by lip incompetency.[3] In fact, few patients notice the excess lower third of their face. It is especially true in mild to moderate vertical maxillary excess. Hence, surgeons use the tooth show as predicting criteria in conjunction with cephalometry analysis. The maxilla is positioned superiorly so 2 to 3 mm of maxillary incisor is exposed when the upper lip is at rest. Because postsurgical studies indicated that the upper lip is shortened by 20% when the maxilla is repositioned superiorly, the maxilla is overcorrected proportionately.[1] However, the predictability of clinical indexes is controversial because of the variability of soft tissue changes following maxillary superior repositioning. Despite the stability of maxillary superior repositioning, soft tissue unpredictability affects patients' satisfaction after operations.
(1) lip length
(2) factors influencing lip length

The aim of this study was to evaluate the correlation of predictions and surgical results in maxillary superior repositioning.

MATERIALS AND METHODS

This is a prospective study to evaluate the accuracy of clinical prediction related to surgical results in subjects who underwent

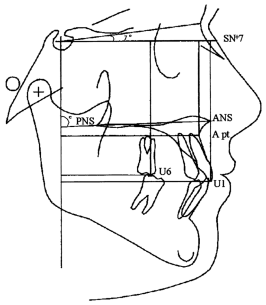

FIGURE 1. The analysis measured the linear distances (in millimeters) from the maxillary landmarks (U1 and U6) to vertical reference lines. The vertical reference was established perpendicular to SN-7, with its origin at the sella.

