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ENTCase

CONGENITAL APLASIA OF NASAL LOWER LATERAL CARTILAGE AND ITS CORRECTION WITH SEPTAL CARTILAGE COMPOSITE GRAFT: A CASE REPORT

NAZAL ALT LATERAL KIKIRDAKLARIN KONJENİTAL APLAZİSİ VE SEPTAL KIKIRDAK KOMPOZİT GREFT İLE DÜZELTİLMESİ: OLGU SUNUMU

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Rinoloji

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Özet

Alt lateral kıkırdağın konjenital yokluğu nadir görülen deformitelerdir. Bu anomaliler cerrahın gözünden kaçabilir; Ta ki burun estetiği ameliyatı sırasında onlarla karşılaşana kadar. Ameliyat öncesi dikkatli muayene ve görüntüleme yöntemleri kullanılsa bile burun kıkırdağının embriyolojik gelişimsel kusurlarını gözden kaçırmak mümkündür. Alar kıkırdaktaki konjenital eksikliklerle ilgili literatürde, görünür kusurlar ile hastamızda meydana gelen ve çok daha gizli olan kusurlar arasında ayrım yapmak önemlidir. Açık primer septorinoplasti sırasında kazara alt lateral kıkırdağın segmental kaybı vakası keşfedildi. Hastada herhangi bir travma, ciddi enfeksiyon veya herhangi bir müdahale öyküsü yoktu. Alt lateral kıkırdak rekonstrüksiyonu, septorinoplasti prosedürünün bir parçası olarak septal kıkırdak grefti ile yapıldı.

Anahtar kelimeler: alt lateral kartilaj, aplazi cerrahi

Abstract

Congenital absences of lower lateral cartilage are rare deformities. These anomalies may pass unnoticed by the surgeon; until encountering them during rhinoplasty surgery. It is possible to miss embryological developmental defects of the nasal cartilage even if careful examination and imaging methods are used preoperatively. In the literature on congenital deficiencies of alar cartilage, it is important to distinguish between visible defects obvious and those that occurred in our patient, which were much more occult. A case of segmental loss of lower lateral cartilage was discovered accidentally during open primary septorhinoplasty. There was no history of trauma, major infection, or any intervention in the patient. Reconstruction of the lower lateral cartilage was done with a septal cartilage graft as part of the septorhinoplasty procedure.

Keywords: lower lateral cartilage, aplasia surgery

Introduction

Most of the otorhinolaryngologists who perform rhinoplasty are unaware of the congenital defects of nasal cartilage. They generally attribute these deficiencies when encountered intraoperatively despite a negative history.

Isolated non-syndromic congenital nasal anomalies are very uncommon, with a prevalence of 1 in 20,0 0 0 to 1 in 40,0 0 0 live births [1]. The patients may present for functional or cosmetic causes and commonly, they are not aware of this malformation. Different cartilaginous sources were used for reformation, such as conchal cartilage, septal cartilage, or even dorsal nasal hump cartilage [2,3,4].

Case Report

In this case report, a 25 -years-old woman presented. She introduces to our clinic for cosmetic causes. No

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breathing difficulties were reported. She had no different health problems, no family history of similar situations. She had no surgical procedures undertaken before. There was no history of trauma, to the facial area. The patient had no known allergies. No other congenital anomalies were attending. She never had any kind of infection of the face. At the inspection, the tip of the nose was lightly asymmetrical (Figure 1).

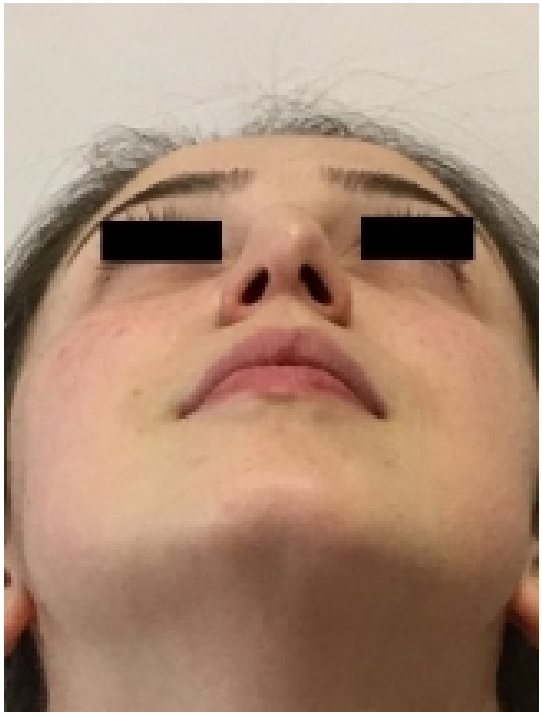

Figure 1
preoperatif photo of the patient

There was a C-shaped septal deviation; however, the inner valve angles were over 15°, bilaterally. Informed agreement of the patient was taken before the operation. The surgery was achieved under general anesthesia. The surgical approach was an open technique rhinoplasty. Intraoperatively, the right lower lateral cartilage was absent. (Figure 2). To provide symmetry and support, a septal cartilage graft was used to impose the right lateral crural cartilage. In addition, strut grafts were used to assist the tip of the nose and columella. The result intraoperatively was acceptable.

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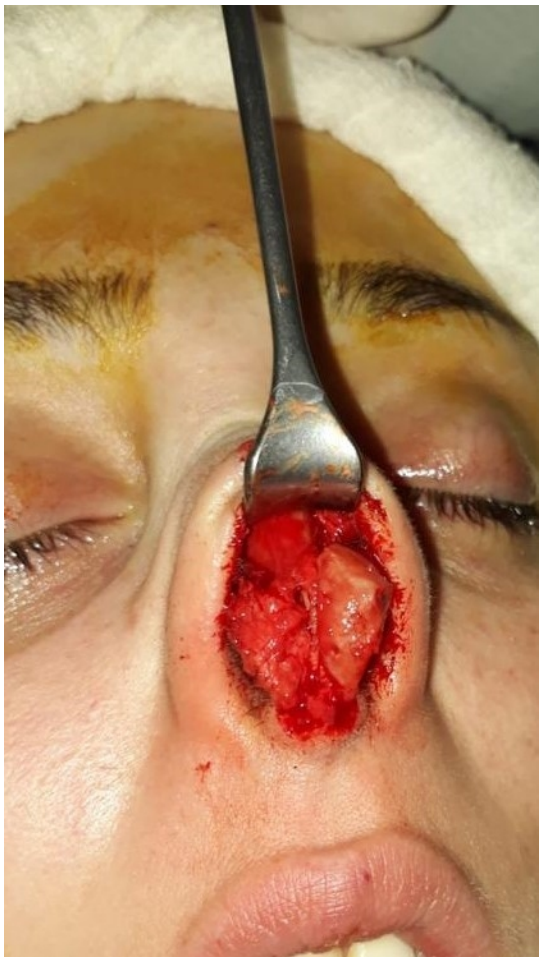

Figure 2A
Intraoperative photos indicating the lack of right lower cartilage

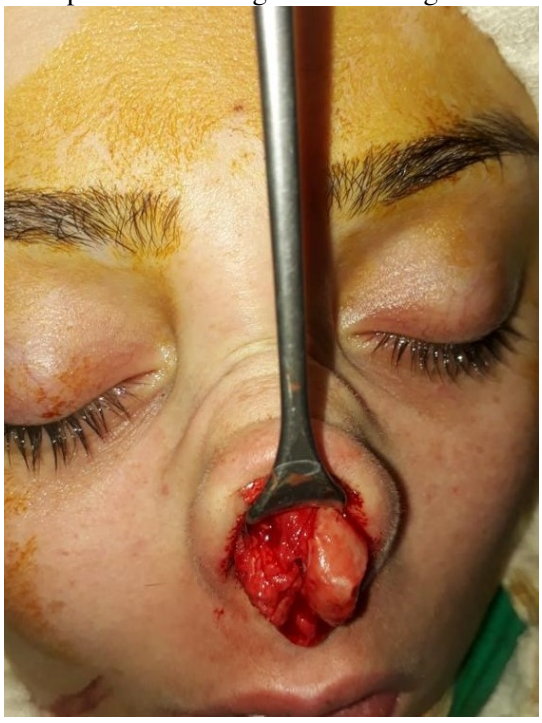

Figure 2B
Intraoperative photos indicating the lack of right lower cartilage

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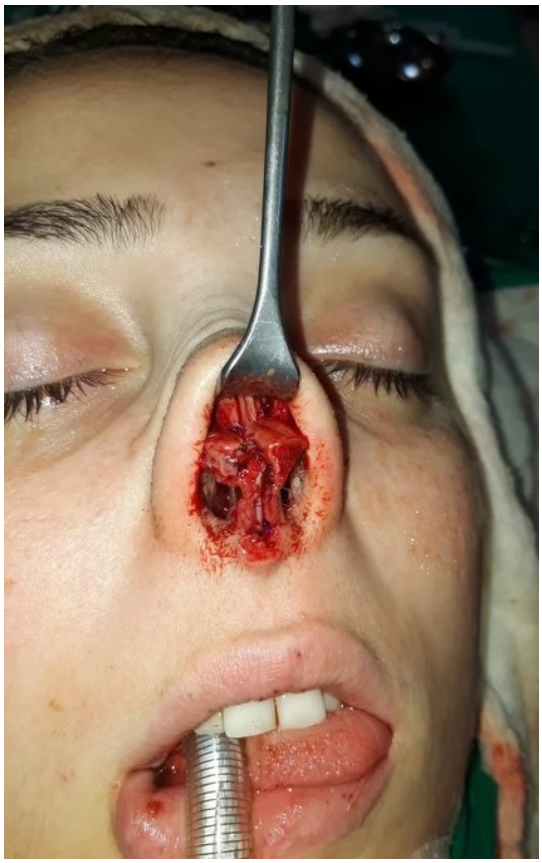

Figure 3
the intraoperative photo with strut grapht

Discussion

The anatomy of the nose is variable. It is possible to miss embryological developmental defects of the nasal cartilage even if careful examination and imaging methods are used preoperatively. The alar cartilage consists of medial and lateral crura anatomically.

Embryological evolution of the nose arises between the 3rd and 10th weeks of gestation [5]. It consists of the medial and lateral nasal processes, which are fused to form the nose. The medial crus is made from the former and the lateral crus from the latter. The defect may additionally occur earlier than the 7th week of gestation due to factors that have an effect on the migration, proliferation, or differentiation of neural crest cells, or after the seventh week of gestation due to pressure or vascular events [1,3]. Congenital alar defect causes remain mostly unknown. One of the causes is the disturbance while the embryonic period as the nasal structures are identified. The cartilage construction of the alar crura can reveal gaps, divisions, or even segmental losses. In our case presented here, the right middle crural cartilage was absent.

In reviewing the literature on congenital deficiencies of alar cartilage, it's far vital to differentiate between seen defects apparent and those that occurred in our patient, which was much more occult [6,7].

Our patient offered cosmetic rhinoplasty and had tip asymmetry as the main idea of a potential hidden physical problem. She had not a background marked by injury, significant infection, or any nasal operation.

Different authors used different sources of cartilage, for example, lower lateral cartilage and hump cartilage [2,3,4]. Septal cartilage graft was utilized, for this situation, it was viewed as reasonable and successful.

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Nasal tip projection that was achieved preoperatively, was protected during the 1 year follow-up period, without soft tissue retraction or cartilage resorption.

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