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CASE REPORT

Cavernous hemangioma of the nasal bone: reconstruction with cartilage graft

Nazal kemikte kavernöz hemanjiyom: Kıkırdak grefti ile rekonstrüksiyon

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A 32-year-old woman presented with nasal obstruction on the right side and a cosmetic defect one year after surgery for nasal hemangioma. On inspection, the right nasal cavity was partly obstructed by a proliferative mass. Computed tomography showed a 2x3-cm soft tissue mass that destroyed the nasal bone. The mass was excised completely with the surrounding tissue and the defect was reconstructed with cartilage taken from the cavum conchae. Cartilage graft is appropriate for reconstruction of nasal bone defects because of its easy availability, elasticity, vitality, and good functional and aesthetic results.

Key Words: Bone neoplasms/surgery; hemangioma, cavernous/surgery; nasal bone/surgery; reconstructive surgical procedures.

Otuz iki yaşında kadın hasta, burun hemanjiyomu için geçirdiği cerrahiden bir yıl sonra, sağ tarafında nazal obstrüksiyon ve kozmetik defekt ile başvurdu. İncelemede nazal boşluğu kısmen tıkayan proliferatif bir kitle saptandı. Bilgisayarlı tomografide, nazal kemiğe büyük ölçüde zarar veren, 2x3 cm boyutunda yumuşak doku kitlesi gözlendi. Kitle, çevre dokuyla birlikte tamamen eksize edildi ve kulağın kavum konka kısmından alınan kıkırdakla rekonstrüksiyon yapıldı. Kolay ulaşılabilirliği, elastik ve canlı olması, işlevsel ve estetik açıdan iyi sonuç vermesi nedeniyle nazal kemik defektlerinde kıkırdak grefti uygun bir seçenektir.

Anahtar Sözcükler: Kemik neoplazileri; hemanjiyom, kavernöz/cerrahi; burun kemiği/cerrahi; rekonstrüktif cerrahi işlem.

Hemangiomas of the bone are rare benign vascular tumors. About two-thirds of hemangiomas occur in the vertebral column and calvarium. Description of nasal bone localization of hemangiomas has predominantly been in the form of single case reports. Sometimes, it is difficult to differentiate intraosseous hemangiomas from the more common malignant epithelial tumors because of destruction to the adjacent bones. They should always be treated by resection and primary reconstruction using different materials.[1]

We presented a case of nasal bone hemangioma reconstructed with a cartilage graft.

CASE REPORT

A 32-year-old woman with one-year history of surgery for nasal hemangioma was referred to our hospital because of nasal obstruction on the right side and cosmetic defect. She had significant deformity after the first operation on the right side of the nasal dorsum. On inspection, the right nasal cavity was partly obstructed by a proliferative mass. Computed tomography (CT) scans showed an inhomogeneously enhancing soft-tissue mass, 2x3 cm in size, causing significant destruction to the nasal bone (Fig. 1).

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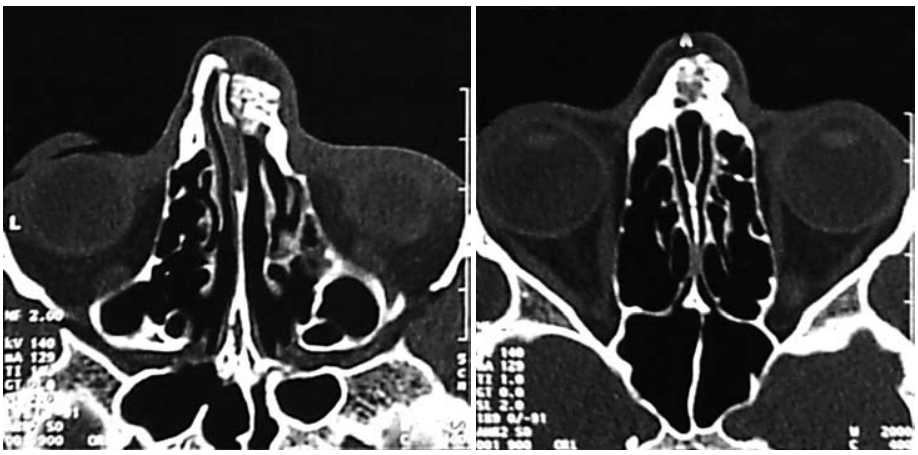

Fig. 1. *CT scans showing a 2x3-cm inhomogeneously enhancing soft tissue mass that destroyed the nasal bone.*

At operation, a curved incision was made along the nasal dorsum and the tumorous lesion, 3x2 cm in diameter, was excised completely with the surrounding tissue. The defect was reconstructed with cartilage taken from the cavum conchae (Fig. 2).

Histopathological examination showed cavernous hemangioma of the nasal bone with large and small vascular spaces, some containing red blood cells and others empty. There were typical hyperplastic, bony trabeculae seen in facial bone hemangiomas (Fig. 3).

DISCUSSION

Hemangiomas of the bone are rare tumors, classified as hamartomas. Their localization is most frequent in the vertebral column and the calvarium. Hemangiomas of the nasal bone usually appear as case reports. They represent an anomalous proliferation of endothelium-lined vessels. Histologically, the capillary type usually arises from the nasal septum, while the cavernous type is seen in the lateral nasal wall. It presents as a painless bone mass causing nasal obstruction and intermittent epistaxis. On CT scans, hemangiomas are well-circumscribed without internal calcification and phleboliths, allowing a clear visualization of the extent of the bony lesion. Contrast CT scanning usually shows anatomical location and extension of the tumor, but sometimes bone destruction may pose difficulty to differentiate from more common malignant epithelial tumors.[2]

Surgical resection and complete excision of hemangioma of the nasal bone often yield very good results, but with a large cosmetic defect. This problem is dealt with in a variety of ways. Some authors performed primary reconstruction. McAllister et al.[3] used a cartilage graft in nine of 26 cases. In 11 other cases, the authors thought that preservation of the periosteum was enough. In some cases, the postoperative defect was unclear.[4,5] Some authors recommended preoperative embolization with Gelfoam pledgets followed by occlusion of the proceeding artery with 2-3 mm steel coils.[1] Other methods include sclerotherapy, cryotherapy, and resection using YAG laser.[6,7]

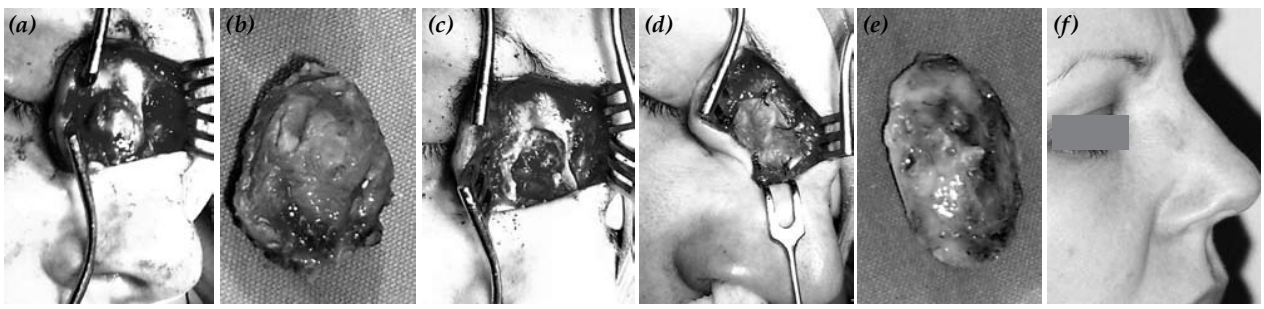

Fig. 2. ***(a)*** *Vascular lesion 3x2 cm in diameter,* ***(b)*** *surgical specimen,* ***(c)*** *nasal bone defect,* ***(d)*** *reconstruction,* ***(e)*** *cartilage graft from the cavum conchae, and* ***(f)*** *postoperative appearance after six months.*

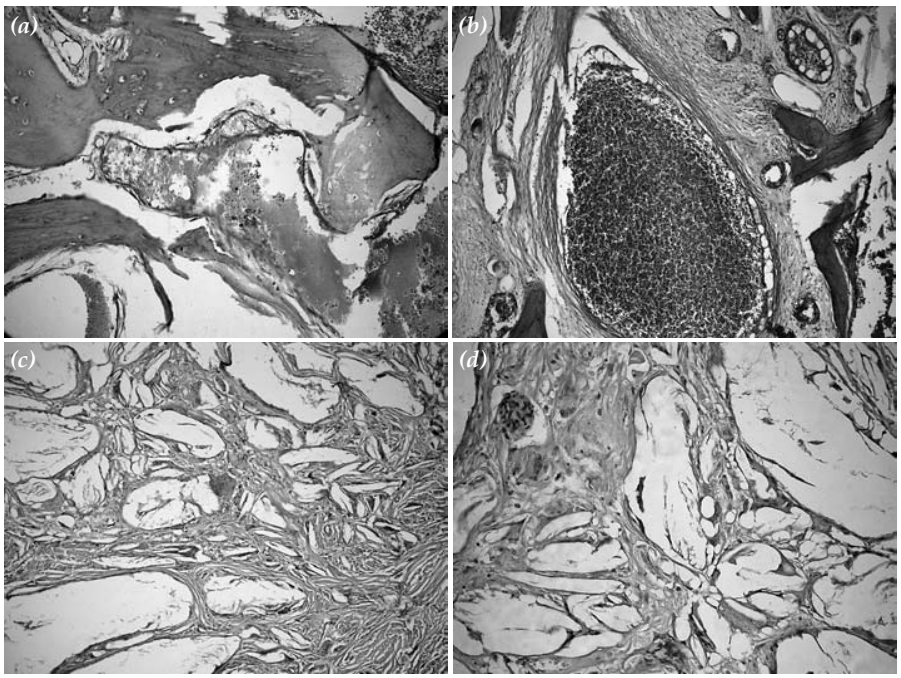

Fig. 3. ***(a)*** *Ectatic blood vessels and vascular channels between bone trabeculae (H-E x 4).* ***(b)*** *Some vascular spaces contain red blood cells and others are empty (H-E x 20).* ***(c,d)*** *Xanthomatosis deposits in nasal bone with foam cells and cholesterol clefts accompanied by foreign body-type (H-E x 10 and x 20).*

We used a cartilage graft for reconstruction of the nasal bone defect because of its easy availability, elasticity, vitality, and good functional and aesthetic results.

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