

Management of an epidermoid cyst in the nasal tip of a child: aesthetic and surgical considerations

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Abstract

Background: A simple subcutaneous lesion such as an epidermoid cyst can present a challenge when located in the nasal tip, as regards aesthetic surgical management. Even when performed parallel to relaxed skin tension lines, a direct transcutaneous incision (commonly used for epidermoid cyst removal) distorts the nasal tip subunit, resulting in a conspicuous, disfiguring scar. This should be avoided, especially in children.

Case report: A 13-year-old girl was referred by her dermatologist for diagnosis and treatment of a slowly progressive dermoid cyst located on the tip of her nose. The cyst was removed using a subcutaneous open rhinoplasty approach, leaving the aesthetic nasal tip subunit intact.

Conclusion: For aesthetic reasons, open rhinoplasty should be considered as a treatment option in patients with subcutaneous lesions in the nasal tip.

Key words: Epidermal Cyst; Child; Nose Diseases; Aesthetics; Cicatrix

Introduction

The treatment of epidermoid cysts is usually surgical, employing a transcutaneous incision over the cyst followed by removal of the complete wall to avoid recurrence. Scars that can be covered by clothing usually do not present an aesthetic problem; however, scars on the face cannot be thus concealed. When a cyst is located in the tip of the nose, a direct transcutaneous approach will distort the aesthetic nasal tip subunit, creating a conspicuous, disfiguring scar. To avoid this, the epidermoid cyst can be removed subcutaneously via an open rhinoplasty approach.

Clinical presentation

A 13-year-old girl was referred by her dermatologist for diagnosis and treatment of a slowly progressive lesion located on the tip of her nose.

Physical examination showed a subcutaneous, semi-elastic lesion with a diameter of 1.0 cm, covered with normal skin (Figure 1). Anterior rhinoscopy identified no abnormalities.

A magnetic resonance imaging scan was performed to narrow the differential diagnosis of vascular tumour, midline lesion and epidermoid cyst. This showed a homogeneous subcutaneous cyst without surrounding tissue infiltration, making an epidermoid cyst the most likely diagnosis.

The cyst was managed surgically, by approaching and removing from below via open rhinoplasty, to avoid a disfiguring scar in the middle of the aesthetic nasal tip subunit (Figure 2). A midcolumellar incision was connected to

marginal incisions (placed on the caudal border of the alar cartilages). Soft tissue was dissected from the underlying alar cartilages to form a soft tissue envelope. A white-yellowish cyst with a small sinus to the skin was removed without rupture of the cyst wall (Figure 3). There was no deformity of the underlying cartilaginous framework of the nasal tip.

Histological analysis confirmed the diagnosis of epidermoid cyst.

Post-operatively, aesthetic results were satisfactory (Figure 4).

- Removal of simple subcutaneous facial lesions can be aesthetically challenging
- Aesthetic facial (sub)units should guide the surgical approach
- Removal of a nasal tip epidermoid cyst in a child is presented
- An approach from below (midcolumellar approach) was used, rather than direct transcutaneous removal
- Good surgical exposure, and a good aesthetic result, were achieved

Discussion

The aesthetic units of the face are based on various convex and concave facial surfaces, which produce regional differences in light reflection. Facial aesthetic units, such as the



FIG. 1

Photograph showing the epidermoid cyst within its aesthetic subunit.

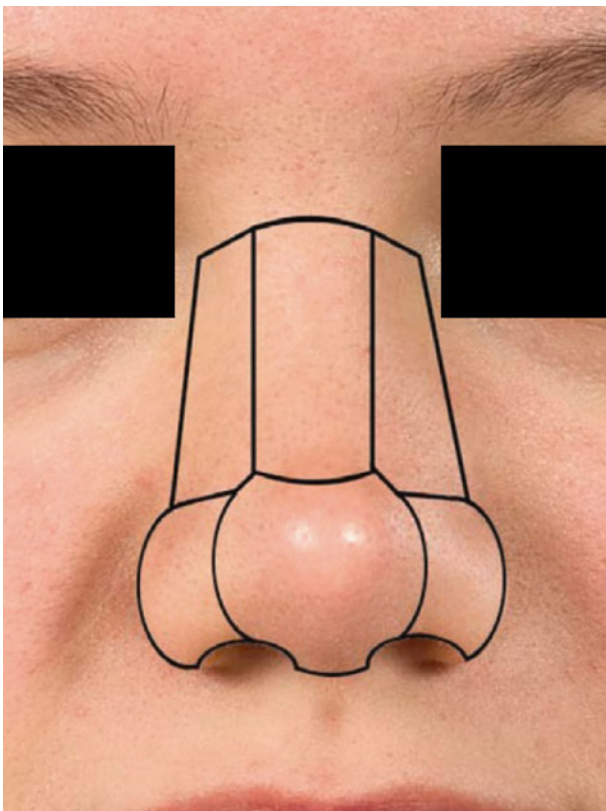


FIG. 2

Photograph with superimposed topographic diagram of the aesthetic subunits of the nasal tip (the columellar subunit is not visible).

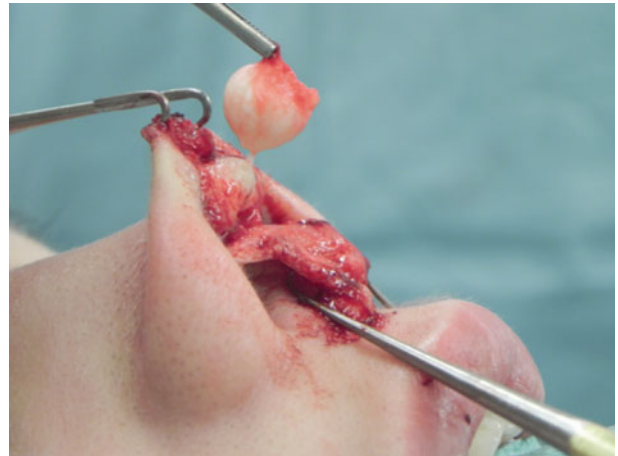


FIG. 3

Surgical photograph showing removal of the white-yellowish epidermoid cyst, with intact capsule, together with a small sinus to the skin.

nasal unit, are further divided into subunits that share similar characteristics, including hair density, skin tone, sebaceous gland distribution, vascular quality, colour and texture. Incisions are best hidden by placement along the border of a (sub)unit. At such borders, our eyes expect changes in contour and light reflection, and thus are less likely to perceive the presence of scar tissue, creating an illusion of normal anatomical architecture.

In the presented case, a transcutaneous incision in the nasal tip would have distorted the aesthetic nasal tip

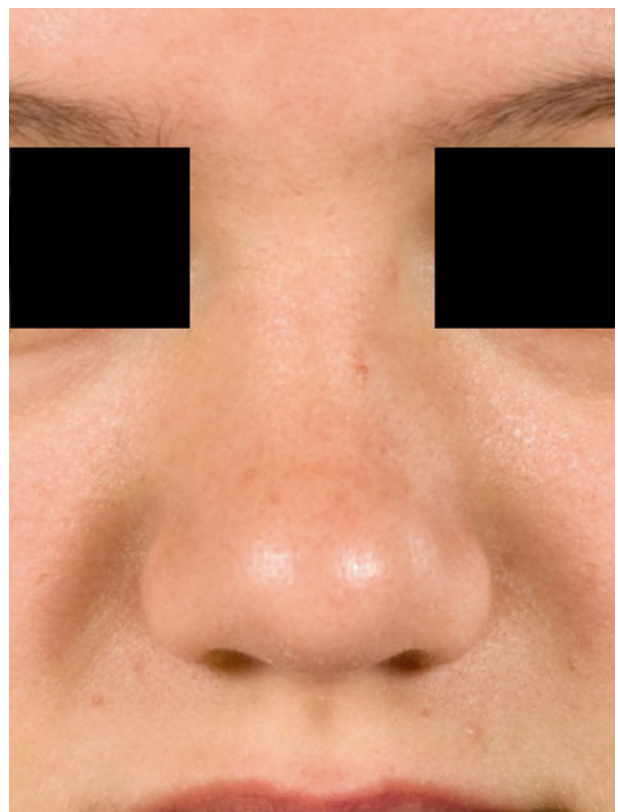


FIG. 4

Photograph showing the post-operative result after six weeks.

subunit, creating a conspicuous, disfiguring scar. To avoid this, the patient's epidermoid cyst was removed from below via an open rhinoplasty approach. This approach gave a satisfactory post-operative result without compromising surgical exposure of the lesion. However, unlike the transcutaneous approach, the rhinoplasty approach requires general anaesthesia. Nevertheless, it is our opinion that, in patients with nasal tip lesions who are fit for surgery under general anaesthesia, open rhinoplasty needs to be considered as a treatment option.

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Dr F R Datema takes responsibility for the integrity of the content of the paper

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