

Clinical Records

Medical management of pseudocyst of the auricle

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Abstract

Four male patients with pseudocyst of the auricle were successfully treated with oral corticosteroids. This condition is an asymptomatic, non-inflammatory, cystic swelling, usually located in the scaphoid or triangular fossa of the anti-helix which if untreated, leads to deformity of the pinna. All successful methods of treatment described in the literature so far have been invasive. All four patients in the above series responded to oral steroid therapy alone.

Introduction

Pseudocyst of the auricle is a rarely reported lesion characterized by intercartilaginous cyst formation affecting the upper half of the anterior aspect of the auricle (Engel, 1966). This disorder is likely to be more prevalent than the number of reported cases (Choi *et al.*, 1984). Various methods of treatment have been described for this condition; all of which are invasive, with the potential of cartilage deformity and infection. Here we describe

successful treatment of this condition with high dose oral corticosteroid therapy.

Case reports

Case 1

A 34-year-old Indian male noticed a painless swelling of the left pinna of 10 days duration. There was no history of trauma to the ear prior to developing this swelling and he had no significant illness in the past.

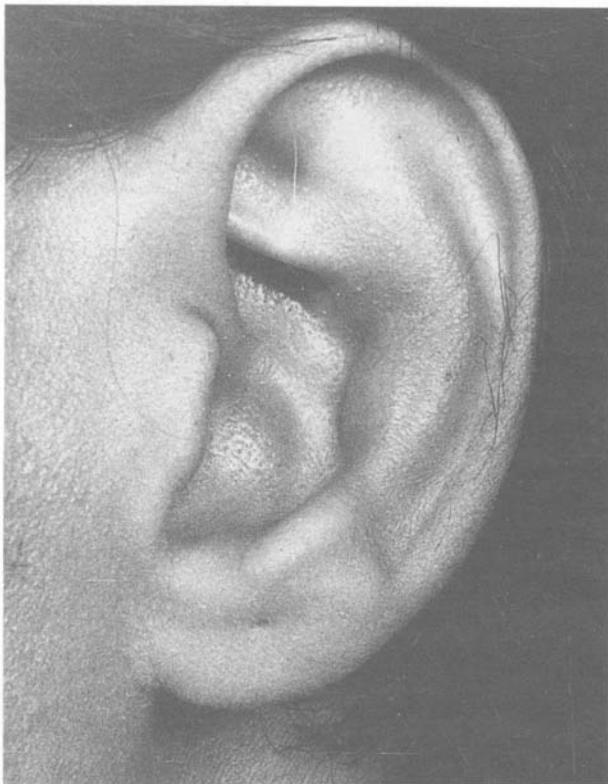


FIG. 1a

Pseudocyst of the auricle in the concha of the left ear of patient no. 1.

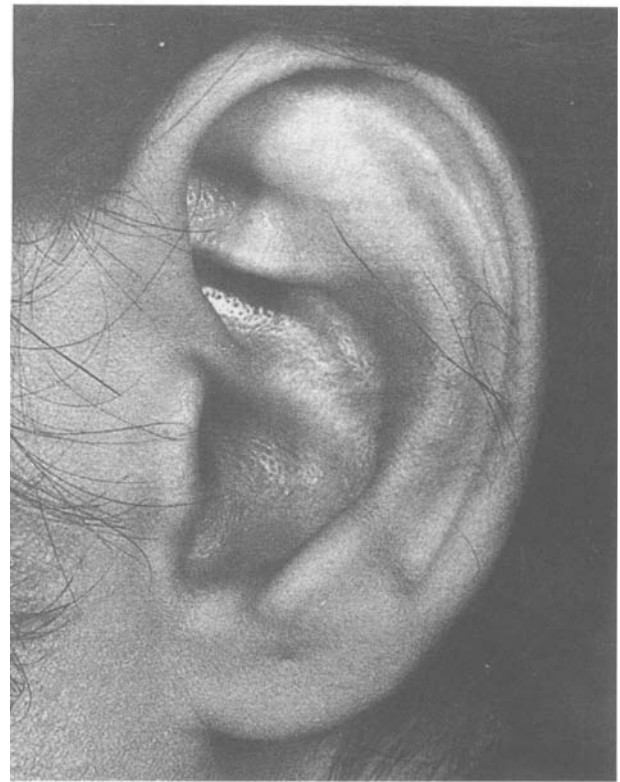


FIG. 1b

Resolution of the lesion following a short burst of corticosteroids.

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FIG. 2a

Large pseudocyst of the right auricle of patient no. 2.

On examination of the left pinna there was a 1.5×1 cm swelling in the concha which was cystic and non-tender (Fig. 1a). A clinical diagnosis of pseudocyst of the auricle was made. He was started on oral prednisolone therapy, 60 mg daily for five days and reviewed. The swelling was no longer tense and was smaller in size. The dose of prednisolone was reduced to 30 mg daily for five days, to 20 mg daily for five days and finally to 10 mg daily for the next five days. Review after this course of steroids revealed complete resolution of the auricular swelling (Fig. 1b).

Case 2

A 34-year-old Indian male presented with a history of a painless swelling in the concha of the right ear (Fig. 2a) of one week duration. There was no preceding history of trauma and no significant medical history.

On examination of the right ear, there was a cystic, non-tender swelling, $4 \text{ cm} \times 2 \text{ m}$ in size. A clinical diagnosis of pseudocyst of the auricle was made and the patient was started on a daily dose of oral prednisolone 60 mg daily for five days and reviewed. The swelling was no longer tense and had reduced in size. The dose of prednisolone was gradually reduced from 30 mg daily for five days to 20 mg a day for five days and then to 10 mg daily for the next five days. The swelling had considerably reduced in size and on follow up of the patient nine months later, the auricular cartilage showed thickening (Fig. 2b).

Cases 3 & 4

A 31-year-old Indian man presented with a two week history of a painless swelling noticed in the left ear, which was initially small and two days later became quite large and remained as such. An incision and drainage of the swelling had been performed by his physician, but the swelling recurred in three days. He had not received any trauma to the pinna and there was no other significant medical history.

On examination a 4.0×2.0 cm cystic swelling involving the entire antihelix of the left ear was observed, that was neither warm nor tender on palpation. The right ear was normal. A clinical diagnosis of pseudocyst of the auricle was made.

Similarly a 46-year-old Indian male presented with a one week history of a painless swelling on the anterior aspect of the upper part of left pinna. The swelling had appeared spontaneously.

On examination the swelling was 3.5×2 cm cystic and non-tender. The right ear was normal.

Both patients were started on oral prednisolone therapy, 60 mg daily for the first five days and on review the swellings were not tense and had reduced in size. The dose of prednisolone was gradually tapered off over the next 15 days, by which time the swellings had totally resolved.

Discussion

Pseudocyst of the auricle is a cystic lesion ranging from 1 to 4 cm, presenting on the upper portion of the anterior aspect of the external ear (Engel, 1966). The fluid within is usually straw coloured and bacterial (Lapins and Odom, 1982) and fungal culture (Karakshian *et al.*, 1987) are always sterile. These facts encouraged us to use a short course of high dose systemic corticosteroid therapy for these patients with no risk of the development of perichondritis. Three patients responded well and the object of treatment was accomplished, namely successful resolution of the lesion without subsequent recurrence and restoration of the external appearance of the pinna to normal. One patient had residual thickening of the auricular cartilage (Fig. 2b). No surgical intervention was required at any time in any of the patients.

Other treatment methods described such as needle aspiration (Lapins and Odom, 1982), packing the ear with BIPP pack and applying a mastoid bandage for three days after aspiration (Shanmugham, 1985), curettage of the pseudocyst wall fol-

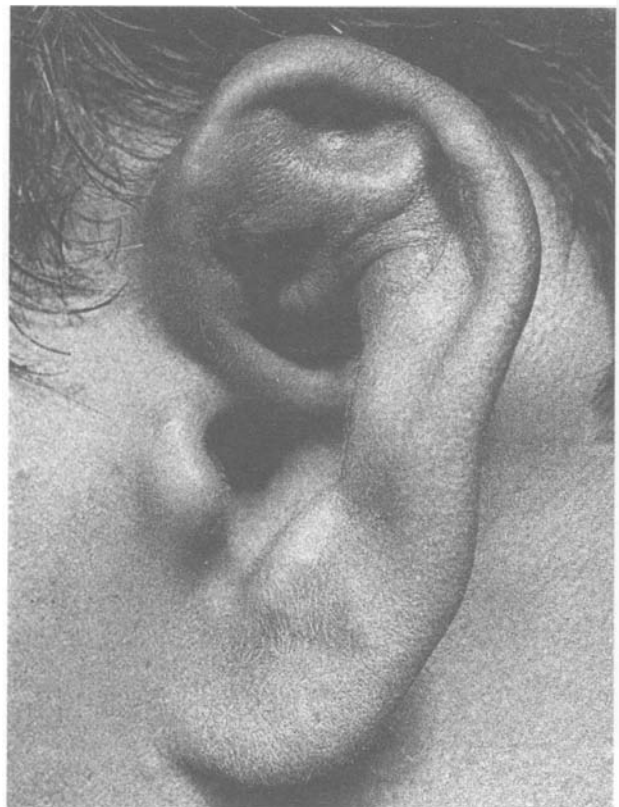


FIG. 2b

Follow up of the patient nine months later showing thickening of cartilage.

lowing incision and drainage and subsequent contour pressure dressing (Hansen, 1967), are invasive and there is always the risk of perichondritis. Excision of the anterior cyst wall, another prescribed method of treatment had the complication of the posterior wall being inadvertently excised leading to a 'floppy' ear (Choi *et al.*, 1984). Recently Li-Xiang and Xiu-Yun (1990) have described a new technique which envisages the introduction of a drainage tube into the pseudocyst using a guide needle. The drainage tube needed to be left in position for five days.

Histologically, there is no epithelial layer of cells lining the inner surface of the intracartilaginous cavity. In early lesions of the cystic space is surrounded by fibrosed cartilage. Irregular thinning and hyalinization of the cartilage peripheral to the cavity may be present. In some areas, necrosis and total dissolution of cartilage may be seen (Cohen and Grossman, 1990). In later stages intracavity foci of granulation tissue and more extensive intracartilaginous fibrosis is present (Heffner and Hyams, 1986).

Epidermal and dermal changes initially are minimal but later there is fibrosis and oedema which results in thickening of the dermis (Cohen and Grossman, 1990).

We feel that the role of corticosteroids may be to prevent intracartilaginous fibrosis and formation of intracavity granulation tissue. Further, fibrosis and oedema of the dermis may be prevented by the anti-inflammatory action of corticosteroids. The accumulated fluid is gradually absorbed resulting in complete resolution of the lesion with good cosmetic result. Occasionally, it can resolve with thickening of the cartilage (Fig. 2b), as reported by Li-Xiang and Xiu-Yun (1990).

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