

## Pseudocyst of the Ear

### Report of Three Cases

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**Pseudocyst of the ear is a rare entity with controversial pathogenesis. Usually it is presented as a solitary, unilateral, fluctuant and non-inflammatory tumour of the ear with overlying normal skin. It occurs most often in young adult males. Incision reveals a serous liquid, with the consistency of olive oil, contained in the cyst-like lesion. Histopathology shows an intracartilaginous cavity with signs of degeneration and necrosis of the limiting cartilage. We present three new cases of this entity. Continuous minor trauma appears to be the causative factor in one of the patients, who also presented bilateral lesions.**

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Pseudocyst of the ear (benign idiopathic chronic chondromalacia) is a non-inflammatory cystic swelling of the external auricle, due to intracartilaginous accumulation of a viscous fluid, resulting from local degeneration of the auricle cartilage. Although the first description of this entity was made in 1886, it can now be considered a rare condition (1).

The etiology of the pseudocysts remains obscure; however, a traumatic origin has been shown in some cases, and it is thought that trauma is a likely factor for this condition.

Patients are most often healthy young adults and are usually male (2). The pseudocysts develop in the upper portion of the anterior auricle and are covered by normal skin. The swelling is usually unilateral and asymptomatic.

Needle aspiration obtains a yellow fluid with the consistency of olive oil (3, 4) and leads to a prompt, but usually temporary, reduction of the cavity.

Histopathology reveals a cystic space within the cartilage that does not have a true lining. Cartilage shows varying degrees of eosinophilic degeneration with the inner aspect more intensely affected (5).

### CASE REPORTS

#### Case 1

A 26-year-old male had the habit, since childhood, of repeatedly handling his ears, twisting downwards the upper parts of helix; he even used to sleep with his ears twisted in this fashion. At the age of 20, small swellings of the upper portion of both ears began to develop. At the time we first saw him, he presented several bilateral non-tender and asymptomatic cystic lesions, 4-8 mm in diameter, located in the scaphoid fossae and spreading downwards in the upper one-third of the anthelics (Fig. 1). Draining from some of the lesions obtained a clear, viscous oil-like fluid. Histopathology of the anterior aspects of one of the lesions showed a pseudocyst, the cavity of which presented a hyalinized cartilage in its inner aspect, with loss of the cellular nuclei. Lesions were removed with excision of the cartilaginous wall; after 18 months of follow-up, there has been no recurrence of the lesions.

#### Case 2

A 36-year-old male presented with a 7-month history of a fluctuant cystic swelling in his right auricle. He denied any previous trauma or triggering factors. The solitary lesion obliterated the anatomical folds of anthelics and the triangular fossa of the right ear. The lesion was incised and a viscous, yellow fluid drained. Despite the careful aspiration, recurrence of the lesion was observed 5 weeks later. Biopsy of the anterior part of the lesion was consistent with pseudocyst of the auricle. Resection of the affected cartilage with preservation of the perichondrium was curative, and no recurrences have been observed after 5 years of follow-up.

#### Case 3

For one year, a 49-year-old male had had an asymptomatic swelling involving part of the helix canal of his left ear. There was no history of concrete previous local trauma. A serous fluid was drained from the lesion. Biopsy from the anterior cyst wall revealed eosinophilic degeneration of the cartilage, and an intracartilaginous cyst with no epithelial lining in its wall under a normal epidermis. Excision of the cartilaginous wall was curative, and there has been no recurrence after 4 years.



Fig. 1. Clinical appearance of the cystic lesion covered by normal skin in patient 1.

## DISCUSSION

Pseudocyst of the auricle is an infrequent entity that represents the end stage of localized degeneration of the auricular cartilage. The degenerated collagen is replaced by a vascular fibrous tissue from which there is serous exudation; then a clinical cystic swelling is formed (4). Patients are usually healthy young men, and the swelling is often a unilateral and solitary lesion, as in our patients 2 and 3. They have been described in both sexes, all races and at any age; rarely, they present as bilateral lesions (2, 4, 6–8).

The concrete etiology of pseudocysts remains controversial, but several hypotheses have been suggested: lysosomal abnormality causing abnormal liberation of enzymes with cartilage degeneration (3), ischemic necrosis of auricular cartilage (4), embryologic malformation of the auricle (7), sun exposure (9), and repeated local minor trauma (11–13). This latter theory is favored at the present time (12).

The cause-effect relationship is usually difficult to establish, as in our patients 2 and 3. However, in patient 1, a traumatic habit maintained over the years was a likely factor for the development of the lesions. Other traumatic factors related to the pseudocyst are sleeping on hard pillows (4), use of motorcycle helmets or stereo headphones (4) and pulling the ears on birthday (11). Pseudocysts of the auricles have also been reported associated with scratching and rubbing in patients with atopic dermatitis (8), and also with antecedent fracture in the conchal cartilage (13).

It is our opinion that local trauma is the causative agent in producing pseudocysts of the auricle, as can be shown in our

patient 1, who presented multiple and bilateral lesions after repeated twisting of his both ears over the years.

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