

필러 시술 후 발생한 귀의 가성낭종

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Pseudocyst of Auricle after Soft Tissue Filler Injection

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A pseudocyst of the auricle is a rare disease with an unknown cause. We report a female patient who had auricular pseudocyst after a soft tissue filler injection in that area. The cyst was excised under local anesthesia. The entire cyst wall was removed and some portion of the surrounding cartilage was also resected. A silastic drain was inserted and the compressive dressing was maintained for 5 days. The swelling subsided gradually and no recurrence was noted after a 1-year follow up. Histopathology confirmed that the cyst has no epithelial lining on its inner surface. Patients and doctors should be aware that a soft tissue filler can cause a pseudocyst when injected into the auricle.

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Key Words: Ear diseases, Foreign-body reaction, Filler

I. INTRODUCTION

A range of complications can occur after a soft tissue filler injection. To our knowledge, a pseudocyst has not been reported as a complication after a soft tissue filler injection. A pseudocyst of the auricle is a rare, asymptomatic intracartilaginous swelling of the auricle resulting from the accumulation of yellow viscous fluid with an unknown cause. The histological examination is characterized by the intracartilaginous accumulation of serous fluid without an epithelial lining.¹ Various treatment methods, such as aspiration, corticosteroid injections and surgical intervention, have been advocated.² Although the etiology of this condition is largely unknown, one hypothesis attributes low-grade trauma as being the precursor event the development of this pseudocyst.¹ We report a case of pseudocyst of auricle after a soft tissue filler

injection to inform the injection procedure could cause the pseudocyst of the auricle.

II. CASE REPORT

A 48-year-old female presented with a painful swelling of the left auricle. There was a 1 × 1.5 cm cystic, tender swelling involving the superior crux and triangular fossa (Fig. 1). She had an unknown filler injected into that area 5 months earlier for aesthetic purposes. There were no clinical infection signs, such as local heating or erythema.

A small incision was made along the anterior border of the swelling. There was spheric space filled with serous fluid (Fig. 2). The inner wall of the cyst was excised along with some cartilage. A silastic drain was inserted and the incision was simply repaired with nylon. A tight dressing was applied for 5 days.

Histopathology revealed an intracartilaginous accumulation of the fluid without an epithelial lining, which is compatible with a pseudocyst. Focal infiltration of predominantly mononuclear lymphocytes within the wall of the pseudocyst was also found. Pain and swelling subsided gradually over a week. There was no recurrence after a 1-year follow up.

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Fig. 1. Preoperative view : Cystic swelling on the superior crux and triangular fossa area of the left auricle.



Fig. 2. Intraoperative view : Serous fluid was filled in the cystic space and some portion of the cartilage was exposed after dissecting the cyst wall.

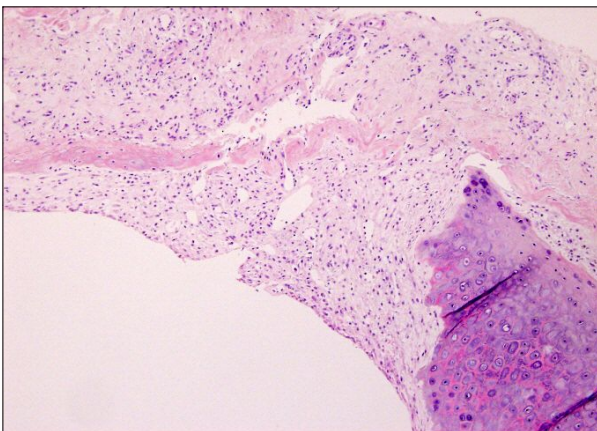


Fig. 3. There is no epithelial lining cells on the inner surface of the cyst. The wall of the pseudocyst is composed of granulation tissue with lymphocytic infiltration and contains degenerated cartilage (Hematoxylin and eosin, $\times 100$).

III. DISCUSSION

Ear has been considered as an important factor in a person's physiognomy for many years. Some people believe that the shape of the auricle is related to the person's fortune or wealth. For that reason, soft tissue filler might be used. A pseudocyst of the auricle is a rare but benign condition that is characterized by a unilateral, asymptomatic, cystic swelling of the helix or the antihelix. The condition was found in young adult males without any trauma history.³ In 1966, Engel first confirmed the intracartilaginous collection of fluid. Since there was no epithelial lining covering their inner surface, it was called pseudocyst.⁴

The diagnosis of an auricle pseudocyst is made clinically and a histology examination of the excised pseudocyst wall is not always required. Typically, there is a solitary, fluctuant, non-inflammatory swelling of the upper half section of the ear with normal overlying skin. A histological examination reveals an intracartilaginous cavity devoid of epithelial lining. The possible differential diagnosis includes chondrodermatitis nodularis chronica helices, subperichondrium hematoma, and relapsing polychondritis.

The etiology of a pseudocyst is still unclear but two main theories exist. Engel and Hansen suggested congenital embryologic dysplasia of the auricular cartilage as the predisposing factor in the development of the pseudocyst. Another main hypothesis is that repeated minor trauma can result in the release of lysosomal enzymes and cause the degeneration of the auricular cartilage.⁴ In this case, it is hard to conclude that the filler was injected into the cartilage or in the triangular fossa directly only based on its histology. Because all cases of the pseudocyst showed the presence of an intracartilaginous cyst without epithelial lining and classically present a swelling over the anterior aspect of the auricle. The injected soft tissue filler might accelerate the inflammatory process or cause vascular compromise that can lead to degeneration of the auricular cartilage.

Various medical and surgical therapeutic approaches have been suggested, but the treatment of auricular pseudocysts is difficult and recurrences are not uncommon. Several modalities have been introduced including simple aspiration with compression bolsters, an intralesional corticosteroid injection, incision and drainage and surgical excision followed by pressure dressings.⁵ Each treatment has its drawbacks and merits. Incisional drainage or needle aspiration followed by a compressive dressing is one of the most commonly applied methods. This technique is simple, easy to apply and less invasive but the recurrence rate is also high. Tuncer et al. described a one stage treatment with surgical curettage, followed by intralesional fibrin glue administration to obliterate the cystic cavity.⁶ Miyamoto et al. applied intracystic

steroid injections to treat their patients.⁷ On the other hand, intralesional steroid administration has some disadvantages, such as skin pigmentation changes, skin, soft tissue and cartilage atrophy and potential systemic side effects. The invasive treatment modalities carry the risk of perichondritis complicated by the formation of a floppy ear or cauliflower deformity. Many surgeons prefer a surgical excision of the anterior segment of the auricular pseudocyst, leaving behind of the posterior segment, followed up compression buttoning of the anterior and posterior wall of the auricle for recurrent cases. Regardless of the treatment method, the common concept of treatment of the auricular pseudocyst is to restore the normal architecture of the auricle with no recurrence. To prevent the re-accumulation of fluid, any compression method is strongly suggested after surgical treatment.

IV. CONCLUSION

This case may be unique and particular given that the injection of soft tissue filler into the auricular area is uncommon. Practitioners and patients should be informed that soft tissue filler may cause a pseudocyst when injected into the auricle.

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