Received: 2018.10.05
Accepted: 2018.11.30
Published: 2019.02.16

e-ISSN 1941-5923
© Am J Case Rep, 2019; 20: 204-206
DOI: 10.12659/AJCR.913464

Acute Non-Traumatic Spontaneous Auricular Hematoma

Authors' Contribution:
Study Design A
Data Collection B
Statistical Analysis C
Data Interpretation D
Manuscript Preparation E
Literature Search F
Funds Collection G

AEF **Michael Mohseni**
ABF **Theodore Szymanski**

Department of Emergency Medicine, Mayo Clinic, Jacksonville, FL, U.S.A.

Corresponding Author: Michael Mohseni, e-mail: mohseni.michael@mayo.edu
Conflict of interest: None declared

Patient: Male, 37
Final Diagnosis: Spontaneous auricular hematoma
Symptoms: Pain and swelling left ear
Medication: —
Clinical Procedure: Incision and drainage
Specialty: Otolaryngology

Objective: Rare disease

Background: Auricular hematomas are well-known among wrestlers and other contact sports participants, but spontaneous auricular hematomas are rare. The differential diagnosis for acute spontaneous auricular swelling is limited. In addition to infectious causes, antecedent trauma, and bleeding complications, angioedema should also be considered. Although rare, acute non-traumatic auricular hematomas need urgent surgical intervention if they are large.

Case Report: A 37-year-old male presented to the Emergency Department (ED) with the complaint of acute pain and swelling to his left ear 30 minutes prior to arrival. He denied any recent or preceding trauma, insect bites, or allergies. He denied any anticoagulant use. Initial treatment was for possible allergic reaction, but an expanding hematoma was subsequently noted. This was incised and drained.

Conclusions: We report a rare case of spontaneous auricular hematoma. By highlighting the clinical features and treatments, the provider can be more alert to recognize and promptly treat this clinical entity.

MeSH Keywords: Ear Cartilage • Ear Deformities, Acquired • Hematoma • Otolaryngology

Full-text PDF: <https://www.amjcaserep.com/abstract/index/idArt/913464>

Background

Auricular hematomas are well-known among wrestlers and other contact sports participants, but spontaneous auricular hematomas are rare. The differential diagnosis for acute spontaneous auricular swelling is limited. In addition to infectious causes, antecedent trauma, and bleeding complications, angioedema should also be considered. Although rare, acute non-traumatic auricular hematomas need urgent surgical intervention if they are large.

Case Report

A 37-year-old male presented to the Emergency Department (ED) with the chief complaint of acute pain and swelling of his left ear. According to the patient, who was also a hospital employee, he was simply standing in a hallway near the operating suite, when he felt a sudden onset of acute pain near the top of his left ear. His left ear began to immediately swell. He commented that it felt as if something ripped or tore within the cartilage. He denied any recent trauma, insect bites, or environmental allergies. He had no recent upper respiratory infection, fevers, or other infectious symptoms. He had experienced no similar episodes in the past. There was no reported anticoagulant, NSAID, or aspirin use.

Another co-worker attested that just prior to this event, the patient had no obvious swelling to his left ear in the area of the antihelix. The remainder of the ear exam was unremarkable except for the notable area of swelling (Figure 1). Initially, the antihelix area was only slightly swollen and painful, and he was treated for possible acute allergic reaction. After a short period of time the swelling and discomfort were increasing. He was given IV pain medication and an 18-gauge needle was inserted into the area of swelling, with a moderate amount of blood obtained upon aspiration. Upon attempts at manual decompression, he experienced worsening pain and swelling.

Otolaryngology was consulted for surgical intervention. An external ear nerve block was performed with 2% lidocaine with epinephrine. A #11 surgical blade was used to make an incision into the antihelix. Gentle massage and Frazier suction was used to express blood from the hematoma. A bolster made using vaseline gauze and dental packing was sewn into the ear to help with compression and healing (Figure 2). A Glasscock ear dressing was used to protect the surgical site. Gram stain and cultures were obtained and were subsequently negative. Lab tests demonstrated normal CBC, electrolytes, and glucose. Furthermore, protein electrophoresis and immunology studies were negative.

Figure 1. Auricular hematoma in the area of the antihelix of the left ear.

Figure 2. Bolster dressing in place after surgical intervention.

On outpatient Otolaryngology follow-up 7 days later, the patient had satisfactory healing and no reported re-accumulation of the hematoma upon removal of the bolster dressing.

Discussion

This patient had an acute onset of a non-traumatic auricular hematoma. There was no other evidence of autoimmune, infectious, or inflammatory etiology for his presentation. His symptoms improved after surgical incision and drainage.

Many patients present to the Emergency Department (ED) with complaints of acute ear pain. The differential diagnosis for patients presenting with ear pain remains broad. In addition to infectious, traumatic, and allergic causes, hematologic and rheumatologic factors also need to be considered by the treating physician. Although quite rare, acute spontaneous hematomas do occur and need surgical intervention if they are large.

One prospective study examined the surgical management of auricular hematomas at 2 institutions over a 4-year time frame, reporting that only 2 spontaneous auricular hematomas were identified in patients presenting for otolaryngology evaluation and repair. Trauma caused by sports, piercing, and falls was the most often reported cause of auricular hematomas. Changes associated with psoriasis were cited as the likely cause in 2 additional patients of this case series. Both the spontaneous and post-traumatic auricular hematomas were managed with open surgery [1]. Non-accidental trauma should remain in the differential diagnosis in pediatric patients presenting with spontaneous auricular hematoma [2].

For patients presenting early with auricular hematomas, simple incision and drainage may suffice as the primary treatment. In cases of delayed presentation, fibrocartilage develops in response to trauma and inflammation of the perichondrium. Generally accepted treatment in this instance is removal of the abnormal fibro-neocartilage to avoid permanent ear damage, often referred to as cauliflower ear deformity. Open incision and drainage with evacuation of the hematoma is generally

recommended in the otolaryngology literature to achieve best cosmetic outcomes [1,3–5]. Bolster compression is less often used if open repair is pursued. Complications of repair include auricular cellulitis, suture abscess, and permanent cauliflower ear deformity in cases of hematoma re-accumulation [1].

Conclusions

Spontaneous auricular hematoma is a rare clinical entity but requires surgical drainage for large hematoma accumulations. The differential diagnoses for auricular hematoma include trauma, infection, angioedema, hematologic causes, and rheumatologic etiologies. Early intervention is important to prevent growth of ectopic tissue that may result in permanent ear deformity (cauliflower ear).

Conflicts of interest

None.

References:

1. Shakeel M, Vallamkonda V, Mountain R, Hussain A: Open surgical management of auricular haematoma: Incision, evacuation and mattress sutures. *J Laryngol Otol*, 2015; 129(5): 496–501
2. Mathur S, Clarke R, John CM: 'Spontaneous' auricular haematoma: A rare differential diagnosis of NAI. *Acta Paediatr*, 2009; 98(6): 928
3. Giles WC, Iverson KC, King JD et al: Incision and drainage followed by mattress suture repair of auricular hematoma. *Laryngoscope*, 2007; 117: 2097–99
4. Vuyk HD, Bakkers EJ: Absorbable mattress sutures in the management of auricular hematoma. *Laryngoscope*, 1991; 101: 1124–26
5. Jones SEM, Mahendran S: Interventions for auricular hematoma. *Cochrane Database Syst Rev*, 2004; (2): CD004166