### NON ABSORBABLE INTERMITTENT MATTRESS SUTURES IN THE MANAGEMENT OF AURICULAR HAEMATOMA

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**ABSTRACT:** Auricular haematoma of pinna usually occurs secondary to trauma. If left untreated usually result in a deformity known as cauliflower ear. Various treatments are employed so as to produce the best cosmetic results. The aim of this article was to evaluate the outcome and complications of the treatment of auricular haematoma using non-absorbable 3-0 prolene intermittent sutures. This study has been performed upon eight patients presented with auricular haematoma at tertiary center, Govt. ENT Hospital, Koti, Hyderabad between August 2013 to August 2014. Follow up was continued for 6 months. The commonest cause behind auricular haematoma was personal insult. It was found that incision and drainage followed by suturing with non-absorbable intermittent mattress sutures appear to be simple, well tolerated and excellent method in treatment and preventing re-accumulation of auricular haematoma and to avoid ear deformity (Cauliflower ear).

**KEYWORDS:** Auricular haematoma, Cauliflower ear.

**INTRODUCTION:** Auricular haematoma is a collection of blood between auricular cartilage and perichondrium.<sup>1</sup> Ear pinna comprises of cartilage covered by perichondrium, subcutaneous tissue and skin. The anterior skin is closely fixed and firmly adherent to the underline cartilage, while posterior skin is separated from the cartilage by muscle, fat and areolartissue and loosely fixed to cartilage. So, trauma to pinna result in accumulation of blood on the anterior aspect of pinna.<sup>2</sup> Auricular haematoma is commonly associated with trauma, most commonly among wrestlers, boxers, football and rugby players, and judo athelets.<sup>3</sup> It can occur spontaneously.<sup>4</sup> If auricular haematoma is not treated properly it may lead to cauliflower ear.<sup>5</sup> Proper management is aimed at restoring normal appearance of the ear, this can only be achieved if perichondritis and re-accumulation of haematoma are avoided.<sup>6</sup> Various treatments for successful outcome of haematoma auris have been done, including aspiration,<sup>7</sup> anterior incision, fenestration of cartilage and evacuation,<sup>8</sup> posterior incision, fenestration of cartilage and evacuation,<sup>9</sup> tie over dressings, various tie through dressings,<sup>10,11</sup> silicon splints, passive drainage,<sup>12</sup> suction drainage,<sup>13</sup> leonard buttons.<sup>14</sup>

**AIM:** Aim of the article was to evaluate the outcome and complications of the treatment of auricular haematoma with incision and drainage and applying non-absorbable 3-0 prolene intermittent mattress sutures.

**MANAGEMENT:** This study has been performed upon eight patients presented with auricular haematoma at tertiary center during the period August 2013 to August 2014 after taking good history from each patient regarding age, sex, cause and duration of injury, after excluding bleeding

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disorders, routine hematological investigations were done. After discussing with the patient regarding the outcomes of the procedure consent was taken. All the cases were done under Local anesthesia. Auricle is prepared under strict aseptic conditions, and anesthetised with 1 in 2 lakhs lidocaine, adrenaline like postaural approach for doing tympanoplasty. Anterior incision was made in natural skin crease at dependent zones like cymba concha, cavum concha, and triangular fossa depending on the site of haematoma. After evacuation of haematoma and copius irrigation, the skin flap was replaced in anatomical position. Non-absorbable 3-0 prolene intermittent mattress sutures applied and dressing done. Patient kept on oral antibiotics and analgesics. The sutures were removed on 8<sup>th</sup> post-operative day. Follow up was continued next 6 months by regular intervals for infection, recurrence and deformity. In our study infection, recurrence and deformity are found to be zero.













**CONCLUSION:** Incision drainage followed by non-absorbable 3-0 prolene intermittent mattress suturing appears to be simple, well tolerated, safe and cost effective, less time consuming, patient compliant with 100% success rate and excellent method in treatment and preventing reaccumulation of auricular haematoma to avoid ear deformity (Cauliflower ear).

#### **REFERENCES:**

- 1. Loock JW (2008) Haematoma auris. In: Gleeson M, Browning GG, Burton MJ.
- 2. Bingham BJ, Chevretton EB (1987) Silicone ear splints in the management of acute haematoma auris. J Laryngol Otol 101: 889-891.
- 3. Lane SE, Rhame Gl, Wroble RL. A silicone splint for auricular haematoma. Physician and sportsmedicine 1998; 26 (9): 77-80.
- 4. Quine SM, Roblin DG, Cuddihy PJ, Tomkinson A. Treatment of acute auricular haematoma. Journal of Laryngology and Otology 1996; 110 (9).
- 5. Staindl O, Siedek V. Complications of auricular correction. Current Topics in Otorhinolaryngology Head and Neck Surgery 2007; 6.
- 6. Vuyk HD, Bakkers EJ. Absorbable mattress sutures in the management of auricular haematoma. Laryngoscope 1991; 101(10): 1124-6.
- 7. Koopmann CF Jr, Coulthard SW (1979) "How I do it" otology and neurology: a specific issue and its solution. Management of haematomas of the auricle. Laryngoscope 89: 1172-1174.
- 8. O'Donnell BP, Eliezri YD. The surgical treatment of traumatic haematoma of the auricle. Dermatologic Surgery 1999; 25 (10): 803-5.
- 9. Bull PD, Lancer JM. Surgeon's workshop. Treatment of auricular haematoma by suction drainage. Clinical Otolaryngology and Allied Sciences 1984; 9 (6): 355-60.
- 10. Nahl SS, Kent SE, Curry AR. Treatment of auricular haematoma by silicone rubber splints. Journal of Laryngology and Otology 1989; 103 (12): 1146-9.
- 11. Scarcella JV. Tie-over dressing to prevent recurrence of a haematoma of the ear. Plastic and Reconstructive Surgery 1978; 61 (4): 610-1.
- 12. Lee EC, Soliman AMS, Kim J. Traumatic auricular haematoma: a case report. Journal of Cranio-Maxillofacial Trauma 1997; 3 (3): 46-8.
- 13. Elichar I, Golz A, Joachims HZ, Goldsher M (1983) Continuous portable vacuum drainage of auricular haematomas. Am J Otolaryngol 4: 141-143.

14. Jajeh E, Molony N. Treatment of pinna haematoma with compression using Leonard buttons, The Journal of Laryngology and Otology 2007; 121: 595-596.

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