

**RESEARCH ARTICLE****STUDY ON CONSERVATIVE TREATMENT IN EARLY OTHEMATOMA IN A TERTIARY CARE HOSPITAL IN EASTERN INDIA****\*Dr. Bimal Kumar Mandal<sup>1</sup>, Dr. Rina Das<sup>2</sup>, Dr. Jayanta Bain<sup>3</sup>**<sup>1</sup>RMO cum Clinical Tutor, Dept. of ENT & Head-Neck Surgery, Calcutta National Medical College, Calcutta, India.<sup>2</sup>Demonstrator, Dept. of Microbiology, Calcutta National Medical College, Calcutta, India.<sup>3</sup>Senior Resident, Dept. of Surgery, S.V.B. Patel Hospital, New Delhi, India**ABSTRACT****OBJECTIVES:** To evaluate a conservative treatment strategy in othematoma.**METHODS:** Study was done with 31 patients with othematoma. These patients were treated in "outpatient department" with aspiration of hemarragic fluid from the pinna, followed by intralesional inj. Dexamethsone (4mg/ml) and Inj. Gentamicin (30mg/ml) given at least 3 doses at 3 day's interval.**RESULTS:** There was marked improvement of clinical signs and symptoms of othematoma within a week and there were complete recovery with a normal pinna at follow-up.**CONCLUSION:** This procedure avoids the conventional "incision and drainage" surgical procedure which is cumbersome for surgeons and painful to the patients. Being no need for hospital admission, with no need of intravenous antibiotic, no need to apply mastoid dressing and bandaging to the patient and with an early recovery, this treatment strategy is very economical and safe.**KEYWORDS:** Othematoma, pinna, incision and drainage, antibiotic.**INTRODUCTION:**

Cystic swellings of the pinna of the ear without serious inflammation are routine findings for otolaryngologists. They are frequently diagnosed as othematoma [1]. The blunt trauma to the auricle causes a shearing injury, resulting in separation of auricular cartilage from its associated perichondrium and bleeding into this newly created space. The cartilage is subsequently deprived of its perichondrium –dependent blood supply and may become ischemic [2]. Various treatments, conservative as well as surgical procedures are described in the literature depending upon the severity or size of the collection. This study describes a simple and effective approach for othematoma.

**MATERIALS AND METHODS:**

This was a prospective study. A number of 31 patients were selected from the outpatients department (OPD) of the ENT & Head-Neck Surgery of Calcutta National Medical College and Hospital from May 2010 to March 2013, a tertiary institution of West Bengal, India. The inclusion criteria were as follows:

1. The patients came with unilateral or bilateral painful auricular swelling.
2. The patients had history of this painful pinna for duration of about 1 week
3. The age the subjects were between 13 to 65 years.
4. These subjects either gave definite history of local ear trauma in the form of ear piercings and blunt trauma.

The exclusion criteria were as follows:

1. Perichondritis and obvious complications viz. Cauliflower ear, Sinus development etc;
2. Cases of perichondritis who have already taken other modes of treatment earlier;
3. Relapsing polychondritis cases.
4. Diabetes mellitus with othematoma

Initial thorough history was taken from all the patients included in our study with the chief complaints of present condition with reference to the nature of onset, site, duration and history of any local trauma, skin condition of pinna prior to the present condition. Having done that, local examination was done of the diseased pinna and noted whether any complications have occurred or not. Thereafter the swelling over the pinna was carefully examined and any effusion aspirated aseptically with sterilized 10 ml syringe with 18G IV needle. Then the aspirated amount of effusion was noted and aspirated fluid in the syringe was sent to Department of Microbiology. An equal amount of Inj. Dexamethasone and Inj. Gentamicin 80 mg in 1:1 ratio mixed in a new 10 ml syringe injected into the swelling through the same prick point. Then light dressing was done with some sterile gauze piece and adhesive tape. All these procedures are done in the OPD. Further doses of this steroid antibiotic injection were given on alternate day at least 3 such until there is remission of signs and symptoms of othematoma and eventually complete recovery to normal healthy pinna. Adjunctive to this oral fluoroquinolones antibiotic

(Levofloxacin or Gemefloxacin or antibiotic as per the sensitivity report) was given.

#### RESULTS:

A total 31 patients were recruited including 25 males and 6 females with an average age of 30 years. All the 31 patients after a week of treatment with this method showed marked improvement in signs and symptoms of othematoma. All the patients came for follow up at 3<sup>rd</sup>, 5<sup>th</sup>, 15<sup>th</sup>, and 30<sup>th</sup> day. On completion of treatment, there were no tell-tale signs of othematoma. Patient's compliance was very good with this procedure.

#### DISCUSSION:

Acute auricular hematoma is common after blunt trauma to the side of the head. A network of vessels provides a rich blood supply to the ear, and the ear cartilage receives its nutrients from the overlying perichondrium. Prompt management of hematoma includes drainage and prevention of reaccumulation. If left untreated, an auricular hematoma can result in complications such as perichondritis, infection, and necrosis. Cauliflower ear may result from long-standing loss of blood supply to the ear cartilage and formation of neocartilage from disrupted perichondrium. Management of cauliflower ear involves excision of deformed cartilage and reshaping of the auricle [2]. Hematoma may present immediately following an injury or in delayed fashion as a painful swelling, which causes effacement of the normal topography of the auricle. Management consists of evacuation. This may be accomplished via aspiration if the hematoma is acute and small in size. For large collections, an incision and drainage procedure is required. Most important is the placement of a pressure dressing to prevent reaccumulation [3]. If a patient comes with cystic swelling of the pinna because of collection of hemarregic fluid and the aspiration shows no frank pus, no evidence of distraction of ala cartilage, instead of incision and drainage a conservative approach can taken by simply aspirating the fluid inside and instilling equal amount of a mixture of Inj. Dexamethsone and Inj. Gentamicin. This local application of steroids reduces of increased capillary permeability, local exudation, and cellular infiltration, phagocytic and later responses like capillary proliferation, collagen deposition, fibrinolytic activity and ultimately scar

formation. The cardinal sign of inflammation-redness, heat, swelling, and pain are also suppressed [4]. Pattanaik also reported same approach in cases of perichondritis and pinna haematoma with an excellent result [5]. It is not such that a cavity with collection should always be drained openly, for example, in breast abscesses, aspiration of the abscess is the initial treatment of choice recommended now[6].

#### CONCLUSIONS:

The results of the present study points to the fact that for othematoma local aspiration of fluid in the swelling and instillation of an equal combination of Inj.Dexamethasone and Inj.Gentamicin works very good. Results were very satisfying because, the patient experiences much less pain, recovery is faster, and for the surgeon it is less cumbersome for him also and lastly this strategy is very economical too. Thus, a very good success rate can be achieved for early othematoma by this simple treatment protocol.

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