

Short Communication

Splint Versus Quilting Sutures In Treating Pinna Haematoma

Rahi kalef Mahdi

College of Medicine, University of Al-Qadisiyah, Diwaniyah, IRAQ

E-mail:Dr.rahi_alyasiri@yahoo.com

Accepted 13 June, 2017

Abstract

This study was done on outpatient clinic E.N.T department in Al-Diwanyah teaching hospital and private clinic. Total number of patients 30 divided into two groups group A 15 patient treated with incision, drainage and silicon splint while group B treated with incision, drainage and through and through quilting absorbable sutures, patients included in study suffering from haematoma auris from different etiology (trauma or spontaneous).

Local anesthesia with lidocaine 1% infiltrated directly into the area to be incised, under aseptic technique incision and haematoma evacuated and silicon splint with trough and trough suture in group A and multiple quilting absorbable sutures (4-5) where applied to group B fellow after one week for removal of splint in group A and for fellow up for both groups, factors included in fellow up recurrence (reaccumulation), infection and cosmetic appearance.

A total of 30 patients (27 male & 3 female) with ratio 9:1. Out of 15 patients in group A, one patient developed recurrence of hematoma, one developed soft tissue infection, one developed perichondritis (both respond to antibiotics) and no one developed cosmetic deformity.

Out of 15 patients in group B one developed recurrence, and no other complications where observed in those patients. Conclusions: For the treatment of hematoma auris, most of techniques are associated with pitfalls like reaccumulation, perichondrial inflammation and formation of an abscess, thickening of pinna and cosmetic deformity. Our study showed minimal recurrence which is equal to splint method, no cosmetic deformity and no perichondrial inflammation and thickening making it one of the effective techniques for treating haematoma auris.

Key Words: hematoma auris, splint, drainage.

الخلاصة

هذا البحث يتضمن دراسة مقارنة بين استخدام الجبيرة السليكونية وطريقة الدرز بعد بزل التجمع الدموي في صيوان الاذن وقد تمت تحت التخدير الموضعي التعقيم التام.

اجري البحث في العيادة الخارجية لشعبة الانف الاذن والحنجرة والعيادة الخاصة، تم تقسيم المرضى الى مجموعتين أ واجريت لهم وضع الجبيرة السليكونية بعد البزل والمجموعة ب فتمت لهم عملية الدرز بعد البزل، وكان عدد المرضى الذين خضعوا للدراسة ثلاثون مريضاً في الفترة من تموز ٢٠١٢ الى تموز ٢٠١٦ وكان عدد الذكور ٢٧ والناث ٣ وقد بنيت الدراسة على متابعة عقابيل كل من المجموعتين اعتماداً على حدوث الالتهابات او عودة التجمع الدموي او التغيرات التجميلية.

المجموعة أ مريض واحد عانى من عودة التجمع الدموي ومريض اخر من التهاب الجرح واخر من التهاب السمحاق الغضروفي واستجاب كلا المريضين للعلاج ولم يظهر تغيرات تجميلية غير مقبولة، من المجموعة ب مريض واحد عانى من عودة التجمع الدموي ولم نلاحظ مضاعفات اخرى في نفس المجموعة.

تبين من خلال هذه الدراسة ان هناك عدة طرق لعلاج التجمع الدموي في صيوان الاذن وكثير من هذه الطرق حدثت لها مضاعفات مثل عودة التجمع الدموي او التغيرات التجميلية وهذا يجعلها من الطرق المحبذة لعلاج التجمع الدموي في صيوان الاذن.

Introduction

A subperichondrial or pinna haematoma is a accumulation of extravasated blood between the perichondrium of pinna and its cartilage, Cartilage does not have its own blood source and depend on the blood vasculature in the perichondrium over it for supplement of nutrient and oxygen. Loss of the latter, the chondrium will mortify, leading to a deformed ear. If Untreated, there is the risk of abscess formation and subsequent necrosis of cartilage [1]. The haematoma is usually produced by external insult, although sometimes the idiopathic rupture of a blood vasculature may be the cause This occurs always on the anterior surface of the pinna where the skin is firmly adherent to the underlying perichondrium, when ear exposed to insult separate the perichondrium from the cartilage. On the posterior aspect, areolar tissue that intervening allows the skin to glide over the perichondrium. Rarely, defect through the cartilage can allow blood to collect under the perichondrium on both sides of the cartilage [2]. A patient with haematomaauris usually suffering from edematous, fluctuant, and ecchymotic auricle, with disappearance of the normal cartilaginous landmarks [3]. management is aspiration of the haematoma complete sterile precautions and firm pressure splint, carefully packing all concavities of the pinna to prevent accumulation. Repeated aspiration may be needed. After failed aspiration, incision and drainage should be done and pressure applied by

dental rolls tied with through and through sutures. Prophylactic antibiotics needed [4]. Complications: deformity, cauliflowerer/wrestler's ear, perichondritis [5], the mechanism of hematoma drainage has been debated. To date, no randomized controlled trials have addressed this issue [6].

Materials and Methods

Study was done on outpatient clinic E.N.T department in Al-Diwanyah teaching hospital and private clinic from July 2012 to July 2016. Total number of patients 30 divided into two groups group A 15 patient treated with incision, drainage and silicon splint while group B treated with incision, drainage and through and through quilting absorbable sutures, patients included in study suffering from haematomaauris from different etiology (trauma or spontaneous), age above 18 years, patients who refuse local anesthesia, patients with haematoma more than one week, Recurrent or chronic hematomas Where not included in the study. Local anesthesia with lidocaine 1% infiltrated directly into the area to be opened, under aseptic technique incision and haematoma evacuated and silicon splint with trough and trough suture in group A and multiple quilting absorbable sutures (4-5) where applied to group B fellow after one week for removal of splint in group A and for fellow up for both groups, factors included in fellow up recurrence (re-accumulation), infection and cosmetic appearance



Results

A total of 30 patients (27 male & 3 female) with ratio 9:1

Of 15 patients in group A, one patient developed recurrence of hematoma, one developed soft tissue infection, one

developed perichondritis (both respond to antibiotics) and no one developed cosmetic deformity,

Of 15 patients in group B one developed recurrence, and no other complications were observed in those patients.

Table 1: Age distribution of patients

age group (Yr)	No. of cases	%
20-30	20	66.6%
31-40	5	16.6%
41-50	3	10%
>51	2	6.65

Table 2: Types of complications in patients under study

Complication	Group A	Group B
Recurrence	1	1
Soft tissue infection	1	0
perichondritis	1	0
Cosmetic deformity	0	0

Discussion

In comparing to Hansen [7] and Engel in their studies on haematoma found that occurrence exclusively in male. In our study the ratio was 9:1 for male: female. Variety of treatments methods include simple aspiration, and aspiration in combination with bolstered dressing/sutures or plaster of paris cast [8]. These techniques are known to be associated with high percentage of

accumulation or deformity. Other more open methods include incision and drainage of the cavity followed by obliteration by curettage, window procedure etc. the open methods are known to be involved with risk of cosmetic deformity, infection ,abscess formation and may be followed by recurrences [9]. In studies done by Bage et al., [10] recurrence rate with aspiration and bandaging was 54.55%

and for aspiration and injection technique was 17.95%, compared with this study group A and group B only one patient in each group had developed re accumulation [Table-2]. In a study done by Bhandary et al. [9] 12% of patients showed perichondritis, 20% showed thickening of auricle and 4% showed deformity of auricle. Compared to this in our study, one patient in group A showed perichondritis, 0% showed cosmetic deformity, where in group B 0% for perichondritis and cosmetic deformity.

Conclusions

There are several methods available for the treatment of hematoma auris. However, most of these techniques are associated with pitfalls like re accumulation, perichondrial inflammation and formation of an abscess, thickening of pinna and cosmetic deformity. Our study with this method showed minimal recurrence which is equal to splint method, no cosmetic deformity and no perichondrial inflammation and thickening making it one of the effective techniques for treating haematoma auris.

References:

1. Logan Turner's diseases of the nose, throat and ear head and neck surgery 11th edition Otolological trauma chapter 51 page 484.
2. JAMES W Loock Haematoma auris Scott-Brown Otorhinolaryngology, Head and Neck Surgery 7th edition Volume 3 chapter 236m page 3373.
3. Myles Melton, Kevin D Brown, Samuel H Selesnick. Disease of external ear sataloff comprehensive text book otolaryngology head and neck surgery, volume 1 ,chapter 8 p:124.
4. PL Dhingra disease of ear nose and throat 4th edition chapter 1 p 50
5. K,J LEE essential otolaryngology 11th edition chapter 23 page 424
6. Grey Woode et al, management of auricular haematome and cauliflower ear facial plastic surg 2010; 26(6):451
7. Hansen JE. Pseudocyst of the Auricle in Caucasians. Archives of Otolaryngology. 1967;85:35-36.
8. Juan KH. Pseudocyst of the auricle: steroid therapy. AurisNasus Larynx. 1994; 21:8-12
9. Satheesh Bhandary, Thomas Varghese Mannil. A comparative study in the management of auricular pseudocysts. Indian J Otolaryngology Head Neck Surgery, 2000; 52(3).
10. Bage, et al. Pseudocyst of the auricle. National journal of clinical anatomy. 2012;1(4):181-85.