



(RESEARCH ARTICLE)



A comprehensive study on benign lesions of the pinna

Ketanashree RG *, Swaroop Dev M, Bharath Kumar KL, Jyothi Swarup R and Shaik Kashifullah

Department of E.N.T, Sri Siddhartha Medical College Agalkote, Tumkur, Karnataka, India.

International Journal of Science and Research Archive, 2024, 11(02), 097-100

Publication history: Received on 14 January 2024; revised on 25 February 2024; accepted on 28 February 2024

Article DOI: <https://doi.org/10.30574/ijrsra.2024.11.2.0359>

Abstract

Background: Pinna contributes enormously to the facial aesthetics, and also an important part of the peripheral auditory system. Although lesions of pinna are not uncommon, a comprehensive study on various lesions encountered in clinical practice have been less carried out. Early intervention and confirmation of diagnosis by histopathological examination helps not only in successful management but also in preventing disfigurement of the ear and psychosocial complications.

Methodology: A Prospective study was done in the Department of ENT, for duration of 18 months, total of 30 patients of both genders in age group of 18 - 60 years with clinical features of benign lesions of pinna were enrolled in the study, and were subjected to clinical examination and history regarding onset and predisposing factors. Surgery was carried out under local anesthesia in all of the cases.

Results: Majority of patients were in the age group of 31 - 40 years. Most of the patients presented with Keloid 16 (53%), 8 (27 %) cases were Seroma, 3 (10 %) were Epidermoid cysts , followed by 2 (7%) cases of sebaceous cyst and a case of Neurofibroma. Ear piercing is the predisposing factor in most of the cases, followed by Trauma .

Conclusion: Early intervention and confirmation of diagnosis by histopathological examination helps not only in successful management but also in preventing disfigurement of the ear and psychosocial complications.

Keywords: Epidermoid cysts; Keloid; Pinna; Seroma

1. Introduction

Pinna being a delicate, vulnerable and outwardly projected structure is more liable for trauma, and its incidence is more frequently being reported due to increasing violence, accidents, and high ear piercing. Pinna coupled with external auditory meatus acts to provide frequency specific resonance of sound. Unique position of pinna on the head and its relative size to the craniofacial skeleton transform the incoming sound signal dependent on the wavelengths of the acoustic waveform to provide localisation clues for listener to an incoming signal.^[1] There are numerous anatomical ridges and convolutions in the pinna. Sound waves from either the horizontal or vertical direction are reflected from these ridges and enter the ear canal with original non-reflected incident sound. Keloids are benign, hypertrophic fibrous lesions that generally develop following trauma or surgery. The commonest age for the onset of keloids is between 15 and 45 yr. They are more frequent in females and a certain degree of familial heredity has been reported. They are more common in darkly pigmented people, and found on the pinna as a result of ear piercing. An excess of extracellular matrix, particularly glycoproteins, characterizes the histopathological appearance of keloids. Pseudocyst or seroma is an uncommon asymptomatic, non-inflammatory swelling of pinna, characterized by endochondral cyst formation. Sebaceous cyst is a common benign cyst caused by blockage of draining ducts of sebaceous glands leading to cystic dilatation of the gland as a result of accumulation of sebum. Neurofibromas are circumscribed, but non encapsulated

* Corresponding author: Ketanashree R.G

neoplasms of the nervous system. Various benign lesions of pinna can be easily recognized and diagnosed by a good clinical history and examination without the aid of any special investigations. Management of benign lesions of pinna should be done at the earliest to avoid overt disfigurement, thereby preventing changes to the entire appeal of the face.^[2]

2. Materials and Methods

A Prospective study was done in the Department of ENT, Sri Siddhartha medical college, Tumkur , for duration of 18 months from April 2022 – October 2023 , after obtaining the institutional ethical clearance, a total of 30 patients of both genders in age group of 18 - 60 years with clinical features of benign lesions of Pinna were enrolled in the study, and were subjected to history and clinical examination regarding onset and predisposing factors. Aim of our study is to determine the various benign lesions of Pinna and their management in patients presenting to ENT out patient department. Relevant patients were subjected to fine needle aspiration cytology and histo pathological examination. Routine hematological tests such as complete blood count, Bleeding Time, Clotting Time, Random Blood Sugar level, serology (HIV, HbsAg, HCV) were done. Surgery was carried out under local anesthesia with aseptic precautions in all of the cases. Patients were followed up, to assess wound healing and recurrence during the study period. Infective/ Inflammatory conditions of pinna and Malignant conditions of the pinna were excluded from the study.

3. Results

In our study most of the patients were in the age group of 31 to 40 years, about 11 patients constituting of 36.66%, 08 patients (26.66 percent) in the age group of 18 to 30 years, 06 patients (20.00 percent) in the age group of 41 to 50 years, 5 patients (16.6 percent) in 51 to 60 years age group.

Table 1 Age wise distribution of cases

Age group(years)	No of cases	Percentage
18- 30	08	26.66 %
31-40	11	36.66 %
41-50	06	20.00 %
51-60	05	16.66 %
TOTAL	30	100

Table 2 Distribution of Total Cases

Diagnosis	No of Cases	Percentage
KELOID	16	53 %
EPIDERMOID CYST	6	20 %
SEROMA	4	13 %
SEBACEOUS CYST	3	10 %
NEUROFIBROMA	1	3

Table 3 Distribution of cases based on predisposing factors

Factors	No of cases	Percentage
Trauma	14	47%
Ear Piercing	12	40%
Burns	1	3%
Unkown	3	10%

Distribution of Total Cases: In this study, 16 cases (53 percent) presented with keloid, followed by 8 cases (27 percent) of Seroma , 03 cases (10 percent) with epidermoid cyst , 2 cases (7 percent) with Sebaceous cyst and a case of neurofibroma. This increased number of keloid could be attributed to increase in the “high piercing” where in ear piercing is done in the cartilaginous part of the pinna. Keloid was more predominant in females than males. Seroma was more common in males than females. Keloid patients were managed with complete excision followed by intra lesional triamcinolone every fortnight for 2 consecutive months. Seroma was managed by window procedure. Sebaceous cyst, epidermoid cyst and neurofibroma by complete excision. Post operative period was uneventful in all the cases. During the study period no recurrence was seen in any of the cases.

Distribution of cases based on predisposing factors: Ear piercing was the most common factor seen in 16 cases (53%), followed by 10 cases of Trauma (34%) followed by 3 case (10 %) of unknown etiology and a case of burns.

4. Discussion

A total of the 30 cases who had presented with the various lesions of the pinna to the ENT OPD, Sri Siddhartha Medical College & hospital, Tumkur, were clinically examined and investigated and managed with appropriate surgeries under aseptic precautions. It was a Prospective study. In our study most of the patients were in the age group of 31 to 40 years, about 11 patients constituting of 36.66%, 08 patients (26.66 percent) in the age group of 18 to 30 years, 06 patients (20.00 percent) in the age group of 41 to 50 years, 5 patients (16.6 percent) in 51 to 60 years age group. In a prospective study conducted by Srirangaprasad K et al, 40 percent of the patients were in age group of 20-29 years, followed by 30 percent in the age group of 10-19 years.⁴ In our study , 16 cases (53 percent) presented with keloid, followed by 8 cases(27 percent) of Seroma , 03 cases (10 percent) with epidermoid cyst , 2 cases (7 percent) with Sebaceous cyst and a case of neurofibroma. Peter Donkor in a clinical review of patients presenting with new and recurrent keloid of the head and neck determined that 40 mg triamcinolone injected into the residual lesion, primary between 10 and 14 days postoperative. The injection was repeated on 2 more occasions at monthly intervals. All patients were followed up for at least 2 years. Eighteen patients were successfully treated with no sign of recurrence in any of them.⁷ Daniel J Rosen et al did a retrospective analysis of 64 patients representing 92 ear keloids. The treatment protocol consisted of excision with an intraoperative and two postoperative steroid injections. Success was achieved in 74 of 92 keloids (80 percent) excised.⁸ In the study conducted by Kishore Chandra Prasad et al , who with their experience of 116 cases of seroma found trauma as the leading predisposing factors accounting for 82 cases, followed by insect bite in 13 and ear piercing in 21 cases.⁵ In the study conducted by Kishore Chandra Prasad et al , who with their experience of 116 cases of seroma found trauma as the leading predisposing factors accounting for 82 cases, followed by insect bite in 13 and ear piercing in 21 cases. In their study of 39 cases of sebaceous cyst, managed them by complete excision and did not observe any recurrence.

5. Conclusion

Patients present with swelling of the pinna with or without pain. Ear piercing was the most important factor in causation of number of benign lesions of pinna like keloid . Other factors are, trauma in pseudocyst of auricle. Diabetes mellitus plays a significant role in a few of the conditions and should be controlled simultaneously. Early intervention and confirmation of diagnosis by histopathological examination helps not only in successful management but also in preventing disfigurement of the ear and psychosocial complications. Further study with the large sample size and increase in the duration of study may help in knowing the proportion of the benign lesions of pinna and also for determining the appropriate management.

Compliance with ethical standards

Disclosure of conflict of interest

No conflict of interest to be disclosed.

Statement of ethical approval

The study was approved and ethical clearance taken from the Ethics committee, Sri Siddhartha Medical College, Tumkur Karnataka.

References

- [1] Honnegowda T , Kumaraswamy N H, Gaur S K .Clinico-Etiological study of benign lesions of pinna and its management. *J Otorhinolaryngol Allied Sci* 2021;4(1):24-27.
- [2] AbdullGaffar B, Manzgi M, Saleem N. Benign mesenchymal tumors of the external ear: A series of 14 cases. *Ann Diagn Pathol.* 2019 Aug;41:62-68.
- [3] Thierauf J, Walther M, Rotter N, Scheithauer MO, Hoffmann TK, Veit JA. Treatment of ear keloids: algorithm for a multimodal therapy regimen. *Eur Arch Otorhinolaryngol.* 2017 Nov;274(11):3859-3866.
- [4] Srirangaprasad K, Kumar P, Patil S, et al. A clinical study of benign lesions of pinna. *J. Evolution Med. Dent. Sci.* 2016;5(10):414-417, DOI: 10.14260/jemds/2016/95
- [5] Prasad KC, Karthik S, Prasad SC. A comprehensive study on lesions of the pinna. *Am J Otolaryngol.* 2005 Jan-Feb;26(1):1-6.
- [6] Lim CM, Goh YH, Chao SS, Lim LH, Lim L. Pseudocyst of the auricle: a histologic perspective. *Laryngoscope.* 2004 Jul;114(7):1281-4.
- [7] Peter Donkor: Head and neck keloid: treatment by core excision and delayed intralesional injection of steroid: *J Oral Maxillofac Surg.* 2007 Jul ;65 (7):1292-6.
- [8] Daniel J Rosen et al: A primary protocol for the management of ear keloids: results of excision combined with intraoperative and postoperative steroid injections: *Plast Reconstr Surg.* 2007 Oct ;120 (5):1395-400.
- [9] Stewart CE 4th, Kim JY. Application of mitomycin-C for head and neck keloids. *Otolaryngol Head Neck Surg.* 2006 Dec;135(6):946-50.
- [10] Jeniffer et al: Adjuvant radiation of bilateral postauricular keloids: *Med Dosim.* 2007 ;32 (4):278-80.
- [11] Tomas Fikrl, Karel Pizinger: Cryosurgery in the Treatment of Earlobe Keloids: Report of Seven Cases: *Dermatol Surg.* 2005 Dec 1;31 (12):1728- 1731.