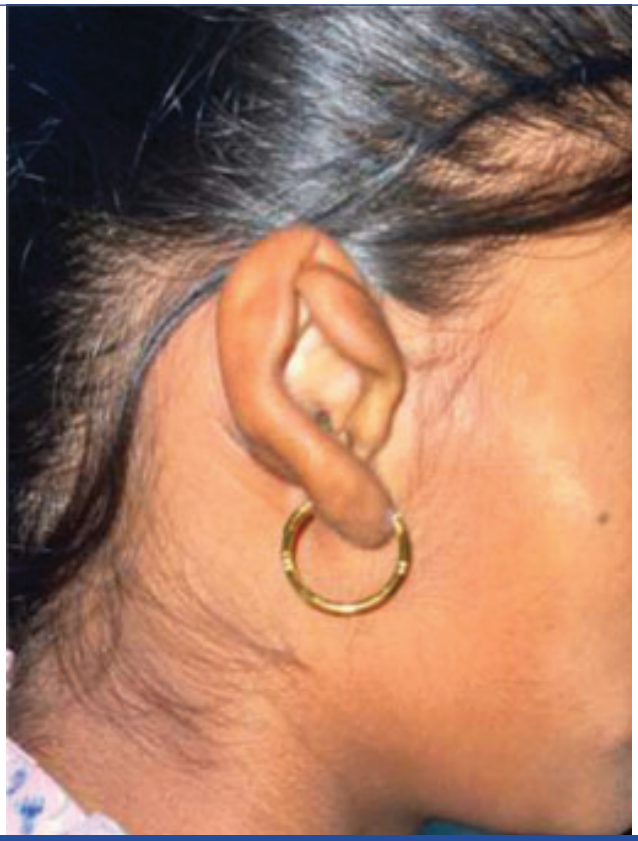
DOI: 10.7860/JCDR/2024/66946.19118

Bizarre Deformity of Pinna

JASLEEN KAUR[1], PRASAD DESHMUKH[2], SAGAR GAURKAR[3]

Keywords: Constricted ear, Cupped ear, Macrotragus

A 15-year-old female presented to the Ear, Nose and Throat (ENT) Department with only complaint of deformity of the right pinna since childhood. No other associated congenital anomalies were present. On examination, congenital right-sided deformed pinna which exhibited exotic and bizarre deformity with macrotragus extending towards helix, a prominent helical fold, the cartilaginous ridge running parallel to the helix was found to be conspicuously absent, and imparting cupped ear appearance, further contributing to the complex deformity of the pinna [Table/Fig-1]. The patient had normal external auditory meatus, tympanic membrane, and hearing. The clinical diagnosis was macrotragus with cupped ear. As the patient was willing to undergo cosmetic reconstruction, she was suggested different plans of ear reshaping surgeries.



[Table/Fig-1]: Right pinna with macrotragus extending towards helix with prominent helical fold.

The constricted ear is a condition where the superior helix has folded-over and tightened appearance, caused by an abnormal distribution of chondrocutaneous tissue. Cup ear, also referred to as lop or lidding ear, is characterised by a folded-over appearance of the ear with malformation of the helix, scapha, and antihelix and associated with an excess amount of conchal cartilage [1,2].

To ascertain the underlying aetiology and plan appropriate management, further investigations and consultations were warranted, including genetic testing to identify any associated genetic syndromes or chromosomal abnormalities, as well as audiological assessments. Treatment options will depend on severity of the deformity, impact on hearing function, and the patient's overall well-being. Surgical interventions such as ear reshaping surgery or reconstruction may be considered to improve the aesthetic appearance and address functional concerns [3].

Tewfik TL and Der Kaloustian VM have provided an extensive compilation of syndromes and conditions linked to congenital ear malformations [3]. Chen P et al., conducted a one-year study to evaluate the effectiveness of molding for constricted ear, a prevalent malformation impacting the aesthetic appearance of the auricle. Early ear molding is an effective treatment for constricted ear. Sufficient molding duration and consolidation periods are crucial in maintaining treatment effects [4]. Zhang TY et al., elaborated on the International Consensus Recommendations concerning microtia, aural atresia, and functional ear reconstruction. The recommendations encompassed aspects such as defining and classifying microtia/atresia, addressing microtia treatment, managing congenital aural atresia, outlining a flowchart for functional ear reconstruction, and highlighting future avenues for research [5]. Agarwal P reported two atypical cases involving congenital bilateral ear deformities. In the first case, the deformity manifested as upper auricular detachment on the right-side coupled with anotia on the left-side. The second case exhibited upper auricular detachment on the left-side while the right-side appeared normal. The study aimed to establish a correlation between the observed deformities and the embryological-foetal development of the auricle. The report suggests that effective correction can be achieved by repositioning the auricle to its typical location [6].

It is crucial to emphasise that an accurate diagnosis and comprehensive management plan should be developed through a multidisciplinary approach involving ENT specialists, plastic surgeons, geneticists, and audiologists. The specific treatment plan will be tailored to the individual needs and preferences of the patient, ensuring the best possible outcome in terms of both aesthetics and functionality.

REFERENCES

[1] Schultz K, Guillen D, Maricevich RS. Newborn ear deformities: Early recognition and novel nonoperative techniques. Semin Plast Surg. 2017;31(3):141-45. Doi: 10.1055/s-0037-1603958.
[2] Bartel-Friedrich S. Congenital auricular malformations: Description of anomalies and syndromes. Facial Plast Surg. 2015;31(6):567-80. Doi: 10.1055/s-0035-1568139.
[3] Fraser G. Congenital anomalies of the ear, nose and throat. Tewfik TL and Der Kaloustian VM (Editors) Oxford University Press, ISBN 0-19-507784-9. Human Genetics. 1999;104(3):279-80. Doi: 10.1007/s004390050950.
[4] Chen P, Yang J, Yang L, Liu Y, Gao M, Li S, et al. One-year outcomes of ear molding for infants with constricted ear. Plast Reconstr Surg. 2023;151(1):159-66. Doi: 10.1097/PRS.0000000000009781. Epub 2022 Oct 18. PMID: 36251819; PMCID: PMC9788922.

[5] Zhang TY, Bulstrode N, Chang KW, Cho YS, Frenzel H, Jiang D, et al. International consensus recommendations on microtia, aural atresia and functional ear reconstruction. J Int Adv Otol. 2019;15(2):204-08. Doi: 10.5152/iao.2019.7383. PMID: 31418720; PMCID: PMC6750779.

[6] Agarwal P. Congenital upper auricular detachment: Report of two unusual cases. Indian J Plast Surg. 2009;42(2):265-68. Doi: 10.4103/0970-0358.59298.

PARTICULARS OF CONTRIBUTORS:
1. Junior Resident, Department of Otorhinolaryngology, Datta Meghe Institute of Higher Education and Research, Wardha, Maharashtra, India.
2. Head, Department of Otorhinolaryngology, Datta Meghe Institute of Higher Education and Research, Wardha, Maharashtra, India.
3. Associate Professor, Department of Otorhinolaryngology, Datta Meghe Institute of Higher Education and Research, Wardha, Maharashtra, India.

NAME, ADDRESS, E-MAIL ID OF THE CORRESPONDING AUTHOR:
Dr. Jasleen Kaur,
Junior Resident, Department of Otorhinolaryngology, JNMC, DMIHER, Sawangi, Meghe, Wardha-442004, Maharashtra, India.
E-mail: jasleenkakkad@gmail.com

PLAGIARISM CHECKING METHODS: [Jain H et al.]
- Plagiarism X-checker: Aug 09, 2023
- Manual Googling: Dec 19, 2023
- iThenticate Software: Jan 19, 2024 (8%)

ETYMOLOGY: Author Origin

EMENDATIONS: 6

AUTHOR DECLARATION:
- Financial or Other Competing Interests: None
- Was informed consent obtained from the subjects involved in the study? Yes
- For any images presented appropriate consent has been obtained from the subjects. Yes

Date of Submission: **Aug 08, 2023**
Date of Peer Review: **Nov 18, 2023**
Date of Acceptance: **Jan 22, 2024**
Date of Publishing: **Mar 01, 2024**