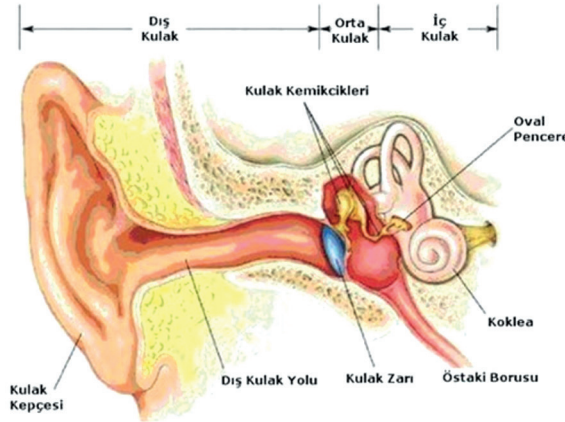


Uzm. Ody. Nuriye YILDIRIM GÖKAY
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Bu bölüme işitme mekanizmasının yapısı ve işlevine kısa bir genel bakış ile başlanmıştır. Sonrasında dudak±damak yarıklarının embriyolojik gelişimi, kafatası-yüz şekil anomalileri ile ilişkili olarak en sık görülen kulaktaki şekil bozuklukları ve işitme kayıplarına değinilmiştir. Dudak±damak yarıklarında işitmenin değerlendirilmesi ve işitme kaybına müdahale sürecinde neler yapılabileceği anlaşılmıştır. Son bölümde ise dudak damak yarıkları ile ilgilenen tüm uzmanlara yönelik bu konuyla ilişkili olan işitme kaybı hakkında bilgi sahibi olmanın ve erken müdahalenin rolü tartışılmıştır.

İşitme Fizyolojisi ve Kulak Yapıları

Kulağın normal fizyolojisini ve yapılarını bilmek, kulak patolojilerinin işitme üzerindeki etkisini anlamak için çok önemlidir. Kulak; dış, orta ve iç kulak olmak üzere üç temel bölümden oluşur (Bkz. Şekil 1).



Şekil 1: Kulak Anatomisi [1]

Kaynakça

1. Moore, B.C., An introduction to the psychology of hearing. 2012: Brill.
2. Moore, K.L., T.V.N. Persaud, and M.G. Torchia, The Developing Human-E-Book: Clinically Oriented Embryology. 2018: Elsevier Health Sciences.
3. Carlson, B.M., Human Embryology and Developmental Biology E-Book: With STUDENT CONSULT Online Access. 2008: Elsevier Health Sciences.
4. Schoenwolf, G.C., et al., Larsen's human embryology E-book. 2014: Elsevier Health Sciences.
5. Sadler, T.W., Langman's medical embryology. 2011: Lippincott Williams & Wilkins.
6. Carlson, B.M., Human Embryology and Developmental Biology E-Book: with STUDENT CONSULT Online Access. 2012: Elsevier Health Sciences.
7. Zajac, D.J. and L.D. Vallino, Evaluation and management of cleft lip and palate: A developmental perspective. 2016: Plural Publishing.
8. Kummer, A., Cleft palate and craniofacial anomalies: effects on speech and resonance USA: Thomson Delmar Learning. 2011, Inc.
9. Berkowitz, S., Cleft lip and palate: diagnosis and management. 2006: Springer Science & Business Media.
10. Kemp, D.T., Otoacoustic emissions: concepts and origins, in Active processes and otoacoustic emissions in hearing. 2008, Springer. p. 1-38.
11. Clark, J.G., Uses and abuses of hearing loss classification. *Asha*, 1981. **23**(7): p. 493-500.
12. Goh, B.S., et al., Hearing status and behavioural patterns among school aged children with cleft lip and/or palate. *International journal of pediatric otorhinolaryngology*, 2019. **118**: p. 1-5.
13. Grandpierre, V., et al., School-aged children with mild bilateral and unilateral hearing loss: Parents' reflections on services, experiences, and outcomes. *The Journal of Deaf Studies and Deaf Education*, 2017. **23**(2): p. 140-147.
14. Halliday, L.F., O. Tuomainen, and S. Rosen, Language development and impairment in children with mild to moderate sensorineural hearing loss. *Journal of Speech, Language, and Hearing Research*, 2017. **60**(6): p. 1551-1567.
15. Hayes, D., State programs for universal newborn hearing screening. *Pediatric Clinics of North America*, 1999. **46**(1): p. 89-94.
16. Barker, S.E., M.M. Lesperance, and P.R. Kileny, Outcome of newborn hearing screening by ABR compared with four different DPOAE pass criteria. *American journal of audiology*, 2000.
17. Chen, J.L., A.H. Messner, and G. Curtin, Newborn hearing screening in infants with cleft palates. *Otology & Neurotology*, 2008. **29**(6): p. 812-815.
18. Paradise, J.L., C.D. Bluestone, and H. Felder, The universality of otitis media in 50 infants with cleft palate. *Pediatrics*, 1969. **44**(1): p. 35-42.
19. Paradise, J.L. and C.D. Bluestone, Early treatment of the universal otitis media of infants with cleft palate. *Pediatrics*, 1974. **53**(1): p. 48-54.
20. Goudy, S., et al., Conductive hearing loss and otopathology in cleft palate patients. *Otolaryngology—Head and Neck Surgery*, 2006. **134**(6): p. 946-948.
21. Hearing, J.C.o.I., Year 2007 position statement: Principles and guidelines for early hearing detection and intervention programs. *Pediatrics*, 2007. **120**(4): p. 898-921.
22. Drake, A.F. and L.H.S. Rosenthal, Otolaryngologic challenges in cleft/craniofacial care. *The Cleft Palate-Craniofacial Journal*, 2013. **50**(6): p. 734-743.

23. Ahn, J.H., et al., Clinical manifestation and risk factors of children with cleft palate receiving repeated ventilating tube insertions for treatment of recurrent otitis media with effusion. *Acta oto-laryngologica*, 2012. **132**(7): p. 702-707.
24. Hartzell, L.D. and L.A. Kilpatrick, Diagnosis and management of patients with clefts: a comprehensive and interdisciplinary approach. *Otolaryngologic Clinics of North America*, 2014. **47**(5): p. 821-852.
25. Berryhill, W., Otolgic concerns for cleft lip and palate patient. *Oral and Maxillofacial Surgery Clinics*, 2016. **28**(2): p. 177-179.
26. Sperber, G.H. and S.M. Sperber, Embryogenetics of cleft lip and palate, in *Cleft lip and palate*. 2013, Springer. p. 3-33.
27. Rieu-Chevreau, C., et al., Risk of occurrence and recurrence of otitis media with effusion in children suffering from cleft palate. *International journal of pediatric otorhinolaryngology*, 2019. **120**: p. 1-5.
28. Kwinter, A., et al., Association between symptomatic submucous cleft palate and otologic disease: A retrospective review. *International journal of pediatric otorhinolaryngology*, 2018. **115**: p. 77-81.
29. Jin, L., K. Li, and X. Li, Clinical outcomes of otitis media with effusion following palatoplasty in patients with incomplete cleft palate. *Acta oto-laryngologica*, 2019. **139**(1): p. 1-5.
30. Yang, C.-H., et al., Prognostic Factors for Hearing Outcomes in Children with Cleft Lip and Palate. *Plastic and reconstructive surgery*, 2019. **143**(2): p. 368e-374e.
31. Shaffer, A.D., et al., Should children with cleft palate receive early long-term tympanostomy tubes: one institution's experience. *The Cleft Palate-Craniofacial Journal*, 2018. **55**(3): p. 389-395.
32. Jordan, V.A. and J.D. Sidman, Hearing outcomes in children with cleft palate and referred newborn hearing screen. *The Laryngoscope*, 2014. **124**(9): p. E384-E388.
33. Szabo, C., et al., Treatment of persistent middle ear effusion in cleft palate patients. *International journal of pediatric otorhinolaryngology*, 2010. **74**(8): p. 874-877.
34. Shprintzen, R.J., et al., Anomalies associated with cleft lip, cleft palate, or both. *American journal of medical genetics*, 1985. **20**(4): p. 585-595.
35. Kuo, C.-L., et al., Otitis media with effusion in children with cleft lip and palate: a narrative review. *International journal of pediatric otorhinolaryngology*, 2013. **77**(9): p. 1403-1409.