# BÖLÜM 31

# NAZAL POLİPOZİS

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## GİRİŞ

Nazal polipler nazal mukoza ve paranazal sinüs mukozasının inflamasyonu ile karakterize, nazal kavitede lümene doğru genişleyen ödemli, lobuler, yarı saydam kitlelerdir.

## TARİHÇE

İlk histolojik tanımlama Billroth tarafından yapılmıştır, 19. yüzyıla kadar tümör olarak kabul edilmiştir (1). 1882'de Zuckerkandl poliplerin inflamatuar yapıda olduğunu ileri sürmüştür (2).

Nazal endoskopların kullanılması ile erken teşhis edilip, daha geniş ve yeterli cerrahi tedavi sansı elde edilmiştir. Hastaların postoperatif takibi daha kolay hale gelmiştir.

## İNSİDANS

Nazal polibin (NP) toplumda görülme sıklığı %1-4'tür (3). Erkeklerde, kadınlara oranla %1,3- 2,2 oranında daha fazla görülür. Ancak kadınlarda klinik daha ağır seyredebilmektedir (4).

Kronik rinosinüzit (KRS), Avrupa nüfusunun%10,9'unu etkiler. Kronik rinosinüzit'li tüm hastaların yaklaşık%25-30'unda NP'li KRS vardır. Amerika Birleşik Devletleri'nde, NP'li KRS tipik olarak 40 ila 60 yaş arasındaki hastaları etkiler (5).

Kronik sinüzit popülasyonunda atopik olmayan grupta %5, atopik nüfusta %1 oranında nazal polip tespit edilmiştir. Nazal poliplerin, çocukluk çağında özellikle 10 yaşından önce görülmeleri nadirdir (%0,1). Bu hastalarda kistik fibrozis (%20) mutlaka araştırılmalıdır (6).

## ETYOPATOGENEZ

Nazal polipler genellikle altta yatan lokal ya da sistemik bir hastalıkla birlikte gözlenir. En sık eşlik eden patoloji kronik sinüzittir. Kronik sinüzit birçok araştırmacı tarafından nazal polipli kronik sinüzit ve nazal polipsiz kronik sinüzit olarak iki gurupta incelenmektedir (7).

Nazal polip oluşumunun nedeni ve kronik sinüzitte polip oluşumu ile sonuçlanan; önlenemeyen kronik inflamasyonun sebebi henüz bilinmiyor. Bu sebeple idiopatik

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## KAYNAKLAR


1. Stammberger H. Rhinoscopic Surgery. Settipane GA, Lund VJ, Bernstein JM, Tos M. Nasal Polyps: Epidemiology, Pathogenesis and Treatment. Rhode Island: Ocean Side Pub, 1997, p 7-15.
2. Mohammadali M. Shojaa, and at al. Anatomist and pathologist Emil Zuckerkandl (1849–1910): Ann Anat 190 (2008) 33-6.
3. Bateman ND, Fahy C, and Woolford TJ. Nasal Polyps: Still more questions than answers. J Laryngol Otol 117:1–9, 2003.
4. Larsen K, Tos M. The estimated incidence of symptomatic nasal polyps. Acta Otolaryngol. 2002;122:179–82.
5. Nasal Polyps.del Toro E, Portela J.2020 Aug 8. In: StatPearls [Internet]. Treasure Island (FL): StatPearls Publishing; 2020 Jan–. PMID: 32809581 Free Books & Documents. Review.
6. Settipane GA. Epidemiology of nasal polyps. Allergy Asthma Proc.; 17 (5): 231-6,1996.
7. Hopkins C. Chronic Rhinosinusitis with Nasal Polyps. N. Engl. J. Med. 2019 Jul 04;381(1):55-63
8. Klimek, L., Koennecke, M., Mullol, J., Hellings, P. W., Wang, D. Y., Fokkens, W. Wollenberg, B. (2017). A possible role of stem cells in nasal polyposis. Allergy, 72(12), 1868–1873. doi:10.1111/all.13221
9. Drake-Lee AB. Medical Treatment of Nasal Polyps. Rhinology; 32: 1-4,1994.
10. Ni G, Chen W, Zhu Y, Zhao H. The recurrent nasal polyp analysed by mRNA difference to demonstrate. Lin Chuang Er Bi Yan Hou Ke Za Zhi.;18 (10): 602- 3, 2004.
11. Fatma Kitapçı, Nazal Polipler Van Tıp Dergisi: 12 (3):212-222, 2005
12. Arşiv Kaynak Tarama Dergisi . zdemir S., Onan E. Archives Medical Review Journal 2019;28(3):242-248 doi:10.17827/aktd.434132
13. Benson M. Pathophysiological effects of glucocorticoids on nasal polyps: an update. Cur Opin Allergy Clin Immunol.; 5 (1): 31-35,2005
14. Tos M, Larsen PL. Nasal Polyps: Origin, Etiology, Pathogenesis, and Structure. Kennedy DW, Bolger WE, Zinreich SJ. Diseases of the Sinuses, Diagnoses and Management. Hamilton: B.C. Decker, 2001, p57-68
15. Pata YS, Bicik E, Aygenç E, Koç C, Özdem C.Endoskopik sinüs cerrahisinin geç dönem sonuçları. Türkiye Klinikleri KBB Dergisi;3: 9-15,2003.
16. Drake-Lee AB. Nasal Polyps. Kerr AG, Stephens D. Scott-Brown's Otolaryngology. Sixth ed. Great Britain: Butterworth&Co. Ltd, 1997; 3: 4/10/1-16.
17. Benoliel P. Treatment of sino-nasal polyposis by Candida albicans immunotherapy: apropos of 4 cases. Allergy Immunol;33 (10):388-94,2001.
18. Weschta M, Rimek D, Formanek M, Polzehl D, Podbielski A, Riechelmann H. Topical antifungal treatment of chronic rhinosinusitis with nasal polyps: a randomized, double-blind clinical trial. J Allergy Clin Immunol.; 113 (6): 1122-8,2004.
19. Bailey nazal polip
20. Koc C, Arikan OK, Atasoy P, Aksoy A. Prevalence of Helicobacter pylori in patients with nasal polyps: a preliminary report. Laryngoscope.; 114 (11):1941- 4,2004.
21. Li MH, Yang ZQ, Yin WZ. The influence of protein kinase C inhibitor in eosinophil apoptosis of nasal polyps. Zhonghua Er Bi Yan Hou Ke Za Zhi.; 39 (6) 353-5,200
22. Young Kim J, Kim CH, Kim KS, Choi YS, Lee JG, Yoon JH. Extracellular signal-regulated kinase is involved in tumor necrosis factor-alpha-induced MUC5AC gene expression in cultured human nasal polyp epithelial cells. Acta Otolaryngol.; 124(8): 953-7,2004.
23. Daglı M, Eryılmaz A, Besler T, Akmansu H, Acar A,Korkmaz H. Role of free radicals and antioxidants in nasal polyps. Laryngoscope; 114 (7): 1200-3,2004.
24. Kang BH, Huang NC, Wang HW. Possible involvement of nitric oxide and peroxynitrite in nasal polyposis. Am J Rhinol.; 18 (4): 191-6,2004.
25. Prieto L, Seijas T, Gutierrez V, Uixera S, Bruno L, Lopez R. Exhaled nitric oxide levels and airwayresponsive ness to adenosine 5-monophosphate in subjects with nasal polyposis. Int Arch Allergy Immunol.; 134 (4): 303-9,2004.
26. Sun Y, Zhou B, Wang C, et al. Biofilm formation and Toll-like receptor 2, Toll-like receptor 4, and NF-kappaB expression in sinüs tissues of patients with chronic rhinosinusitis. Am J Rhinol Allerg 26:104–109, 2012.
27. Tieu DD, Peters AT, Carter RT, et al. Evidence for diminished levels of epithelial psoriasin and calprotectin in chronic rhinosinusitis. J Allergy Clin Immunol 25:667–675, 2010.
28. Peters AT, Kato A, Zhang N, et al. Evidence for altered activity of the IL-6 pathway in chronic rhinosinusitis with nasal polyps. J Allergy Clin Immunol 125:397–403.e10, 2010.
29. Kato A, Peters A, Suh L, et al. Evidence of a role for B cell-activating factor of the TNF family in the pathogenesis of chronic rhinosinusitis with nasal polyps. J Allergy Clin Immunol 121:1385–1392, 2008.
30. Hulse KE, Norton JE, Suh L, et al. Chronic rhinosinusitis with nasal polyps is characterized by B-cell inflammation and EBV-in-

duced protein 2 expression. J Allergy Clin Immunol 131:1075–1083, 2013. (DOI: pii: S0091-6749(13)00252-2. 10.1016/j.jaci. 2013.01.043.)
31. Dykewicz MS, and Hamilos DL. Rhinitis and sinusitis. J Allergy Clin Immunol 125:S103–S115, 2010.
32. Koç C. Nazal Polip. In: Koç C (Ed.). Kulak Burun Boğaz Hastalıkları ve Baş-Boyun Cerrahisi. Ankara, Güneş Kitabevi, 2019, p 624-643.
33. Kim JE, Kountakis SE. The prevalence of Samter's triad in patients undergoing functional endoscopic sinus surgery. Ear Nose Throat J 2007; 86: 396-9.
34. Chong LY, Head K, Hopkins C, et al. Saline irrigation for chronic rhinosinusitis. Cochrane Database Syst Rev 2016; 4:CD011995.
35. Scadding GK, Durham SR, Mirakian R, et al. BSACI guidelines for the management of rhinosinusitis and nasal polyposis. Clin Exp Allergy 2008; 38:260.
36. Fokkens WJ, Lund VJ, Mullol J, et al. European position paper on rhinosinusitis and nasal polyps 2012. Rhinol Suppl 2012; 23: 1-298.
37. Chong LY, Head K, Hopkins C, Philpott C, Burton MJ, Schilder AG. Different types of intranasal steroids for chronic rhinosinusitis. Cochrane Database Syst Rev 2016; 4: CD011993.
38. Kalish L, Snidvongs K, Sivasubramaniam R, Cope D, Harvey RJ. Topical steroids for nasal polyps. Cochrane Database Syst Rev 2012; 12: CD006549.
39. Haye R, Aanesen JP, Burtin B, et al. The effect of cetirizine on symptoms and signs of nasal polyposis. J Laryngol Otol 1998; 112:1042.
40. Wentzel JL, Soler ZM, DeYoung K, et al. Leukotriene antagonists in nasal polyposis: a meta-analysis and systematic review. Am J Rhinol Allergy 2013; 27:482.
41. Micheletto C, Tognella S, Visconti M, et al. Montelukast 10 mg improves nasal function and nasal response to aspirin in ASA-sensitive asthmatics: a controlled study vs placebo. Allergy 2004; 59:289.
42. Weschta M, Rimek D, Formanek M, et al. Topical antifungal treatment of chronic rhinosinusitis with nasal polyps: a randomized, double-blind clinical trial. J Allergy Clin Immunol 2004; 113:1122.
43. Weschta M, Rimek D, Formanek M, et al. Effect of nasal antifungal therapy on nasal cell activation markers in chronic rhinosinusitis. Arch Otolaryngol Head Neck Surg 2006; 132:743.
44. Duffy SM, Lawley WJ, Kaur D, Yang W, Bradding P. Inhibition of human mast cell proliferation and survival by tamoxifen in association with ion channel modulation. J Allergy Clin Immunol. 2003;112:965-72.
45. Pletcher SD, Goldberg AN. Treatment of recurrent sinonasal polyposis with steroid infused carboxymethylcellulose foam. Am J Rhinol Allergy. 2010;24:451–3.
46. US FDA approval of Propel https://www.accessdata.fda.gov/cdrh_docs/pdf10/P100044A.pdf (Accessed on May 08, 2017).
47. US FDA approval of Propel mini https://www.accessdata.fda.gov/cdrh_docs/pdf10/p100044s018a.pdf (Accessed on May 08, 2017).
48. Forwith KD, Han JK, Stolovitzky JP, et al. RESOLVE: bioabsorbable steroid-eluting sinus implants for in-office treatment of recurrent sinonasal polyposis after sinus surgery: 6-month outcomes from a randomized, controlled, blinded study. Int Forum Allergy Rhinol 2016; 6:573.
49. Bachert C, Han JK, Desrosiers M, et al. Efficacy and safety of dupilumab in patients with severe chronic rhinosinusitis with nasal polyps (LIBERTY NP SINUS-24 and LIBERTY NP SINUS-52): results from two multicentre, randomised, double-blind, placebo-controlled, parallel-group phase 3 trials. Lancet 2019; 394:1638.
50. Treister AD, Kraff-Cooper C, Lio PA. Risk Factors for Dupilumab-Associated Conjunctivitis in Patients With Atopic Dermatitis. JAMA Dermatol 2018; 154:1208.
51. Gevaert P, Van Bruaene N, Cattaert T, et al. Mepolizumab, a humanized anti-IL-5 mAb, as a treatment option for severe nasal polyposis. J Allergy Clin Immunol 2011; 128:989.
52. Bachert C, Sousa AR, Lund VJ, et al. Reduced need for surgery in severe nasal polyposis with mepolizumab: Randomized trial. J Allergy Clin Immunol 2017; 140:1024.
53. Gevaert P, Calus L, Van Zele T, et al. Omalizumab is effective in allergic and nonallergic patients with nasal polyps and asthma. J Allergy Clin Immunol 2013; 131:110.
54. Senior BA, Kennedy DW, Tanabodee J, et al. Long-term impact of functional endoscopic sinus surgery on asthma. Otolaryngol Head Neck Surg 1999; 121:66.