BÖLÜM 32

ERİŞKİNDE GIDA ALERJİLERİ

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GİRİŞ

Dünya çapında ve özellikle endüstrileşmiş ülkelerde alerjik hastalıkların oranı giderek artmaktadır (1). Bu hastalıklar genellikle çocukluk çağında başladığı için pediatrik problemler olarak kabul edilse de erişkinlik dönemini de etkilemektedir (2). Çocukların yaklaşık %5-8'ini etkileyen alerjik hastalıklar erişkinlerin %2-3'ünde görülür (3).

Gıda alerjileri immünolojik mekanizmaların gösterildiği gıdaya karşı anormal yanıt olup, belirli bir gıdaya maruz kalınması sonucu tekrarlayan, gıdadan kaçınma sırasında görülmeyen reaksiyonlardır (3–6). Hem immünglobulin E (IgE) aracılı hem de IgE aracılı olmadan gerçekleşebilir (5). IgE aracılı gıda alerjisinde bir gıda alerjenine karşı serum spesifik IgE antikoru gelişir ve tekrar aynı gıdaya maruz kalma ile semptomlar ortaya çıkar. IgE aracılı olmayan gıda alerjisinde ise T hücre aracılı immün yanıt mevcuttur (6). Bu duruma gıdalara karşı tolerans eksikliği ya da kaybına neden olan çeşitli genetik ve çevresel faktörler zemin hazırlamaktadır (4). Cinsiyet, yaş, ikamet edilen ülke, ailesel atopi öyküsü, diğer alerjik hastalıkların varlığı etiyolojide önemli rol oynayabilir (5).

Yapılan bazı çalışmalarda erişkin dönemde %2-10 oranında gıda hipersensitivitesi saptanmıştır (4,6,7). Birincil gıda alerjilerinin prevalansı sabit gibi görünse de gıda alerjenlerinin inhalen alerjenlerle çapraz reaksiyonu sonucu gelişen ikincil gıda alerjilerinin prevalansı artmaktadır (5).

Gıda alerjileri bebeklik çağından erişkinlik dönemine kadar çeşitli farklılıklar göstermektedir. Belirli gıda alerjilerinin farklı yaş gruplarında daha yaygın olduğu bilinmektedir. Örneğin süt ve yumurta gibi gıdalar çocukluk döneminde daha sık görülen alerjenlerdir. 2015-2016 yıllarında ABD'de yapılan anketler erişkin dönemde beklenenden fazla oranda yeni başlangıçlı çocukluk çağı gıda alerjilerinin olduğunu göstermiştir (4). Erişkin dönemde en sık alerjen gıdalar meyveler, sebzeler, ağaç yemişleri, balık, kabuklu deniz ürünleri ve süt sayılabilir. Ağaç

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veler, sebzeler, ağaç yemişleri (fıstık, kaju, fındık ve ceviz), balık, kabuklu deniz ürünleri ve süt sayılabilir. Klinik bulgular çok çeşitlidir ve bunların içinde anafilaksi, oral alerji sendromu, eozinofilik özefajit, gıda proteinlerine bağlı enterokolit ve proktokolit, lateks meyve sendromu, gıdaya bağlı egzersiz ile indüklenen anafilaksi, alfa gal alerjisi sayılabilir. Tanısı hastanın öyküsü, deri prick testleri, gıdaya özgü alerjen spesifik IgE testleri ile konur. Tanıya yardımcı olması için eliminasyon diyetleri ya da oral gıda yüklemeleri kullanılabilir. Bunların dışında gıda alerjisi kaynaklı enteropatilerde endoskopi ve biyopsi yapılması gerekebilmektedir. Tedavide ilk basamak hastaların akut alerjik reaksiyonları tanıması ve bunları yönetebilmesini içerir. Kendi kendine enjekte edilebilen adrenalinin doğru kullanımı ve eliminasyon diyetleri hem hastaya hem de hastanın yakın çevresine öğretilmelidir. Bunların dışında gıda alerjisinin tedavisinde oral, sublingual ve epikutan immünoterapiler uygulanmakta, subkutan immünoterapiler araştırılma aşamasındadır. Gıda alerjilerindeki moleküler mekanizmalar hakkında daha çok bilgiye sahip olunması ile çeşitli biyolojik ajanlar geliştirilmeye çalışılmaktadır.

KAYNAKLAR

1. Sicherer SH, Sampson HA. Food allergy. J Allergy Clin Immunol [Internet]. 2010;125(2 SUPPL. 2):S116–25. Available from: http://dx.doi.org/10.1016/j.jaci.2009.08.028
2. Möhrenschlager M, Ring J. Food allergy: An increasing problem for the elderly. Gerontology. 2010;57(1):33–6.
3. Fu L, Cherayil B. L., H. S, Y. W, Y. Z. Food Allergy FOOD ALLERGY. 2019;20(4):216.
4. Sicherer SH, Warren CM, Dant C, Gupta RS, Nadeau KC. Food Allergy from Infancy Through Adulthood. J Allergy Clin Immunol Pract [Internet]. 2020;8(6):1854–64. Available from: https://doi.org/10.1016/j.jaip.2020.02.010
5. Muraro A, Werfel T, Hoffmann-Sommergruber K, Roberts G, Beyer K, Bindslev-Jensen C, et al. EAACI Food Allergy and Anaphylaxis Guidelines: Diagnosis and management of food allergy. Allergy Eur J Allergy Clin Immunol. 2014;69(8):1008–25.
6. Turnbull JL, Adams HN, Gorard DA. Review article: The diagnosis and management of food allergy and food intolerances. Aliment Pharmacol Ther. 2015;41(1):3–25.
7. Zuberbier T, Edenharter G, Worm M, Ehlers I, Reimann S, Hantke T, et al. Prevalence of adverse reactions to food in Germany - A population study. Allergy Eur J Allergy Clin Immunol. 2004;59(3):338–45.
8. Sampson HA. 9. Food allergy. J Allergy Clin Immunol. 2003;111(2 SUPPL. 2):540–7.
9. Harrop J, Chinn S, Verlato G, Olivieri M, Norbäck D, Wjst M, et al. Eczema, atopy and allergen exposure in adults: A population-based study. Clin Exp Allergy. 2007;37(4):526–35.
10. Kivity S. Adult-onset food allergy. Isr Med Assoc J. 2012;14(1):70–2.
11. Egger M, Mutschlechner S, Wopfner N, Gadermaier G, Briza P, Ferreira F. Pollen-food syndromes associated with weed pollinosis: An update from the molecular point of view. Allergy Eur J Allergy Clin Immunol. 2006;61(4):461–76.
12. Bohle B. The impact of pollen-related food allergens on pollen allergy. Allergy Eur J Allergy Clin Immunol. 2007;62(1):3–10.
13. Vieths S, Scheurer S, Ballmer-weber B. PDFlib PLOP : PDF Linearization , Optimization , Protection Page inserted by evaluation version Current Understanding of Cross-Reactivity of Food Allergens. Ann N Y Acad Sci. 2002;964:47–68.
14. Figueroa J, Blanco C, Dumpiérrez AG, Almeida L, Ortega N, Castillo R, et al. Mustard allergy confirmed by double-blind placebo-controlled food challenges: Clinical features and cross-reactivity with mugwort pollen and plant-derived foods. Allergy Eur J Allergy Clin Immunol. 2005;60(1):48–55.
15. Skypala IJ, Asero R, Barber D, Cecchi L, Diaz Perales A, Hoffmann-Sommergruber K, et al. Non-specific lipid-transfer proteins: Allergen structure and function, cross-reactivity, sensitization, and epidemiology. Clin Transl Allergy. 2021;11(3).
16. Asero R, Antonicelli L, Arena A, Bommarito L, Caruso B, Crivellaro M, et al. EpidemAAITO: Features of food allergy in Italian adults attending allergy clinics: A multi-centre study. Clin Exp Allergy. 2009;39(4):547–55.
17. Osterballe M, Mortz CG, Hansen TK, Andersen KE, Bindslev-Jensen C. The prevalence of food hypersensitivity in young adults. Pediatr Allergy Immunol. 2009;20(7):686–92.
18. Fernández-Rivas M, Bolhaar S, González-Mancebo E, Asero R, van Leeuwen A, Bohle B, et al. Apple allergy across Europe: How allergen sensitization profiles determine the clinical expression of allergies to plant foods. J Allergy Clin Immunol. 2006;118(2):481–8.
19. Asero R, Mistrello G, Amato S, Roncarolo D, Martinelli A ZM. Peach fuzz contains large amounts of lipid transfer protein: is this the cause of the high prevalence of sensitization to LTP in Mediterranean countries? Eur Ann Allergy Clin Immunol. 38(4):118–21.
20. Du Y (Jennifer), Nowak-Węgrzyn A, Vadas P. FPIES in adults. Ann Allergy, Asthma Immunol [Internet]. 2018;121(6):736–8. Available from: https://doi.org/10.1016/j.anai.2018.08.003
21. Tan JA, Smith WB. Non-IgE-mediated gastrointestinal food hypersensitivity syndrome in adults. J Allergy Clin

Immunol Pract [Internet]. 2014;2(3):355-357.e1. Available from: http://dx.doi.org/10.1016/j.jaip.2014.02.002
22. Impellizzeri G, Marasco G, Eusebi LH, Salfi N, Bazzoli F, Zagari RM. Eosinophilic colitis: A clinical review. Dig Liver Dis [Internet]. 2019;51(6):769–73. Available from: https://doi.org/10.1016/j.dld.2019.04.011
23. Arvola T, Ruuska T, Keränen J, Hyöty H, Salminen S, Isolauri E. Rectal bleeding in infancy: Clinical, allergological, and microbiological examination. Pediatrics. 2006;117(4).
24. Nowak-Węgrzyn A, Chehade M, Groetch ME, Spergel JM, Wood RA, Allen K, et al. International consensus guidelines for the diagnosis and management of food protein–induced enterocolitis syndrome: Executive summary—Workgroup Report of the Adverse Reactions to Foods Committee, American Academy of Allergy, Asthma & Immunology. J Allergy Clin Immunol [Internet]. 2017;139(4):1111-1126.e4. Available from: http://dx.doi.org/10.1016/j.jaci.2016.12.966
25. Nowak-Wegrzyn A, Warren CM, Brown-Whitehorn T, Cianferoni A, Schultz-Matney F, Gupta RS. Food protein–induced enterocolitis syndrome in the US population–based study. J Allergy Clin Immunol. 2019;144(4):1128–30.
26. Simon D, Marti H, Heer P, Simon HU, Braathen LR SA. Eosinophilic esophagitis is frequently associated with IgE-mediated allergic airway diseases. J Allergy Clin Immunol. 2005;115(2):1090.
27. Bergmann MM, Caubet JC, Boguniewicz M, Eigenmann PA. Evaluation of food allergy in patients with atopic dermatitis. J Allergy Clin Immunol Pract [Internet]. 2013;1(1):22–8. Available from: http://dx.doi.org/10.1016/j.jaip.2012.11.005
28. Reekers R, Busche M, Wittmann M, Kapp A, Werfel T. Birch pollen-related foods trigger atopic dermatitis in patients with specific cutaneous T-cell responses to birch pollen antigens. J Allergy Clin Immunol. 1999;104(2 I):466–72.
29. Kanny G, Moneret-Vautrin DA, Flabbee J, Beaudouin E, Morisset M, Thevenin F. Population study of food allergy in France. J Allergy Clin Immunol. 2001;108(1):133–40.
30. Nuñez R, Carballada F, Gonzalez-Quintela A, Gomez-Rial J, Boquete M, Vidal C. Delayed mammalian meat-induced anaphylaxis due to galactose-α-1,3- galactose in 5 European patients. J Allergy Clin Immunol. 2011;128(5):1122-1124.e1.
31. Commins SP, Satinover SM, Hosen J, Mozena J, Borish L, Lewis BD, et al. Delayed anaphylaxis, angioedema, or urticaria after consumption of red meat in patients with IgE antibodies specific for galactose-α-1,3-galactose. J Allergy Clin Immunol [Internet]. 2009;123(2):426-433.e2. Available from: http://dx.doi.org/10.1016/j.jaci.2008.10.052
32. Wilson JM, Platts-Mills TAE. Meat allergy and allergens. Mol Immunol. 2018;100(March):107–12.
33. Hilger C, Fischer J, Wölbing F, Biedermann T. Role and Mechanism of Galactose-Alpha-1,3-Galactose in the Elicitation of Delayed Anaphylactic Reactions to Red Meat. Curr Allergy Asthma Rep. 2019;19(1):1–11.
34. Hamsten C, Starkhammar M, Tran TAT, Johansson M, Bengtsson U, Ahlén G, et al. Identification of galactose-α-1,3-galactose in the gastrointestinal tract of the tick Ixodes ricinus; Possible relationship with red meat allergy. Allergy Eur J Allergy Clin Immunol. 2013;68(4):549–52.
35. Moscato G, Pala G, Crivellaro M, Siracusa A. Anaphylaxis as occupational risk. Curr Opin Allergy Clin Immunol. 2014;14(4):328–33.
36. Inomata N, Nagashima M, Hakuta A, Aihara M. Food allergy preceded by contact urticaria due to the same food: Involvement of epicutaneous sensitization in food allergy. Allergol Int [Internet]. 2015;64(1):73–8. Available from: http://dx.doi.org/10.1016/j.alit.2014.08.005
37. Lukács J, Schliemann S, Elsner P. Occupational contact urticaria caused by food – a systematic clinical review. Contact Dermatitis. 2016;75(4):195–204.
38. Santos A, Van Ree R. Profilins: Mimickers of allergy or relevant allergens? Int Arch Allergy Immunol. 2011;155(3):191–204.
39. LaHood NA, Patil SU. Food Allergy Testing. Clin Lab Med [Internet]. 2019;39(4):625–42. Available from: https://doi.org/10.1016/j.cll.2019.07.009
40. Bernstein IL, Li JT, Bernstein DI, Hamilton R, Spector SL, Tan R, et al. Allergy diagnostic testing: An updated practice parameter. Ann Allergy, Asthma Immunol [Internet]. 2008;100(3 SUPPL. 3):S1–148. Available from: http://dx.doi.org/10.1016/S1081-1206(10)60305-5
41. Lockey RF, Benedict LM, Turkeltaub PC, Bukantz SC. Fatalities from immünotherapy (IT) and skin testing (ST). J Allergy Clin Immunol. 1987;79(4):660–77.
42. Sampson HA. Utility of food-specific IgE concentrations in predicting symptomatic food allergy. J Allergy Clin Immunol. 2001;107(5 SUPPL.):891–6.
43. Leonard SA. Debates in allergy medicine: Baked milk and egg ingestion accelerates resolution of milk and egg allergy. World Allergy Organ J [Internet]. 2016;9(1):5–11. Available from: http://dx.doi.org/10.1186/s40413-015-0089-5
44. Turjanmaa K, Darsow U, Niggemann B, Rancé F, Vanto T, Werfel T. EAACI/GA2LEN position paper: Present status of the atopy patch test. Allergy Eur J Allergy Clin Immunol. 2006;61(12):1377–84.
45. Bindslev-Jensen C, Ballmer-Welser BK, Bengtsson U, Blanco C, Ebner C, Hourihane J, et al. Standardization of food challenges in patients with immediate reactions to foods - Position paper from the European Academy of Allergology and Clinical Immunology. Allergy Eur J Allergy Clin Immunol. 2004;59(7):690–7.
46. Sampson HA, Gerth Van Wijk R, Bindslev-Jensen C, Sicherer S, Teuber SS, Burks AW, et al. Standardizing double-blind, placebo-controlled oral food challenges: American Academy of Allergy, Asthma & Immunology-European Academy of Allergy and Clinical Immunology PRACTALL consensus report. J Allergy Clin Immunol [Internet]. 2012;130(6):1260–74. Available from: http://dx.doi.org/10.1016/j.jaci.2012.10.017
47. Glaumann S, Nopp A, Johansson SGO, Rudengren M, Borres MP, Nilsson C. Basophil allergen threshold sensitivity,

CD-sens, IgE-sensitization and DBPCFC in peanut-sensitized children. Allergy Eur J Allergy Clin Immunol. 2012;67(2):242–7.
48. Eller E, Bindslev-Jensen C. Clinical value of component-resolved diagnostics in peanut-allergic patients. Allergy Eur J Allergy Clin Immunol. 2013;68(2):190–4.
49. Berneder M, Bublin M, Hoffmann-Sommergruber K, Hawranek T, Lang R. Allergen chip diagnosis for soy-allergic patients: Gly m 4 as a marker for severe food-allergic reactions to soy. Int Arch Allergy Immunol. 2013;161(3):229–33.
50. Erdmann SM, Heussen N, Moll-Slodowy S, Merk HF, Sachs B. CD63 expression on basophils as a tool for the diagnosis of pollen-associated food allergy: Sensitivity and specificity. Clin Exp Allergy. 2003;33(5):607–14.
51. Ebo DG, Hagendorens MM, Bridts CH, Schuerwegh AJ, De Clerck LS, Stevens WJ. Flow cytometric analysis of in vitro activated basophils, specific IgE and skin tests in the diagnosis of pollen-associated food allergy. Cytom Part B - Clin Cytom. 2005;64(1):28–33.
52. Benson E, Arkins A. ytotoxic testing for food aller valuation of reproducibility an correlation. 1976;58(4).
53. Ernst E. Iridology: A systematic review. Forschende Komplementarmedizin und Klass Naturheilkd. 1999;6(1):7–9.
54. JS. G. Kinesiology and food allergy. Br Med J (Clin Res Ed). 1988;296(6636):1573–4.
55. Niggemann B, Grüber C. Unproven diagnostic procedures in IgE-mediated allergic diseases. Allergy Eur J Allergy Clin Immunol. 2004;59(8):806–8.
56. Agata H, Kondo N, Fukutomi O, Shinoda S, Orii T. Effect of elimination diets on food-specific IgE antibodies and lymphocyte proliferative responses to food antigens in atopic dermatitis patients exhibiting sensitivity to food allergens. J Allergy Clin Immunol. 1993;91(2):668–79.
57. Alonso A, Seoane MA, Irañeta SG, Scavini LM RS. A citrus fruit-exclusion diet in sensitive patients and its influence on specific antibodies. J Investig Allergol Clin Immunol. 4(3):146–8.
58. Muraro A, Roberts G, Worm M, Bilò MB, Brockow K, Fernández Rivas M, et al. Anaphylaxis: Guidelines from the European Academy of Allergy and Clinical Immunology. Allergy Eur J Allergy Clin Immunol. 2014;69(8):1026–45.
59. Ko J, Mayer L. Oral tolerance: Lessons on treatment of food allergy. Eur J Gastroenterol Hepatol. 2005;17(12):1299–303.
60. Lucendo AJ, Arias Á, Tenias JM. Relation between eosinophilic esophagitis and oral immünotherapy for food allergy: A systematic review with meta-analysis. Ann Allergy, Asthma Immunol [Internet]. 2014;113(6):624–9. Available from: http://dx.doi.org/10.1016/j.anai.2014.08.004
61. Kim EH, Burks AW. Food allergy immünotherapy: Oral immünotherapy and epicutaneous immünotherapy. Allergy Eur J Allergy Clin Immunol. 2020;75(6):1337–46.
62. Zhang W, Sindher SB, Sampath V, Nadeau K. Comparison of sublingual immünotherapy and oral immünotherapy in peanut allergy. Allergo J Int. 2018;27(6):153–61.
63. Nowak-Wegrzyn A, Sato S, Fiocchi A, Ebisawa M. Oral and sublingual immünotherapy for food allergy. Curr Opin Allergy Clin Immunol. 2019;19(6):606–13.
64. De Silva D, Geromi M, Panesar SS, Muraro A, Werfel T, Hoffmann-Sommergruber K, et al. Acute and long-term management of food allergy: Systematic review. Allergy Eur J Allergy Clin Immunol. 2014;69(2):159–67.
65. Chinthrajah S, Cao S, Liu C, Lyu SC, Sindher SB, Long A, et al. Phase 2a randomized, placebo-controlled study of anti–IL-33 in peanut allergy. JCI Insight. 2019;4(22):0–14.
66. Sampath V, Nadeau KC. Newly identified T cell subsets in mechanistic studies of food immünotherapy. J Clin Invest. 2019;129(4):1431–40.