

ÖZEL DURUMLARDA AŞI UYGULAMALARI

28. BÖLÜM

Kübra ÇELEĞEN¹

GİRİŞ

Aşılama, hastalıklardan korunmada en etkili ve ucuz yöntemlerden biridir. Ancak bazı özel durumların varlığında aşı uygulamalarındaki farklılıkların hatırlanması ve bireye özgü olarak aşılama programının düzenlenmesi gerekmektedir. Bunlar; aşı veya bileşenlerine karşı alerjik reaksiyon varlığı, prematüre bebek aşılması, gebelikte ve emzirme döneminde aşılama, immün yetmezlik ve kronik hastalıkların varlığında aşılamadır.

AŞI BİLEŞENLERİNE KARŞI ALERJİ

Aşı uygulaması ile oluşan ciddi alerjik reaksiyon nadirdir ve aşının hangi bileşenine karşı oluştuğunu saptamak oldukça güçtür. Aşıdan sonra saatler içinde gelişen reaksiyonlar, IgE aracılı reaksiyonlardır ve anafilaksi, anjioödem gibi hayatı tehdit eden klinik tablolara yol açabilir. Gecikmiş tipteki reaksiyonlar ise genellikle ateş, lokal şişlik şeklindedir ve daha nadiren serum hastalığı tablosu gelişebilir.

Alerjik reaksiyonlar, aşı antijeni, artık hayvan proteini, antimikrobiyal ajanlar, koruyucular, stabilizatörler veya diğer aşı bileşenleri nedeniyle oluşabilir. Aşıya karşı şiddetli alerjik reaksiyon göstermiş olan çocuklar, sorumlu alerjenin belirlenmesi ve daha sonraki aşı uygulamaları açısından bir alerji uzmanı tarafından değerlendirilmelidir ⁽¹⁾.

Yumurta Proteini Alerjisi

En yaygın olarak kullanılan ve alerjik olabilen hayvansal proteindir. İnfluenza ve sarıhumma aşılarında embriyonlu tavuk yumurtası kullanılmaktadır. Yumurta yiyebilen bireyde alerji olmadığı söylenebilir; ancak yumurta alerjisi olan bireylerin fırınlanmış ürünlere karşı reaksiyon göstermeyebileceği akılda tutulmalıdır.

¹ Uzm. Dr., Afyonkarahisar Devlet Hastanesi, Çocuk Sağlığı ve Hastalıkları Kliniği, kubractf@hotmail.com
ORCID iD: 0000-0003-2178-2788

larda KKK ve suçluçeğı aşılarının geciktirilmesi önerilmez. Ailede nöbet öyküsü-
nün olması aşılama için kontrendikasyon oluşturmaz ve aşılamaı geciktirmeye
gerek yoktur ⁽⁶⁰⁾.

KANAMA DİYATEZİ OLAN HASTALARDA AŞILAMA

Kanama diyatezi olan hastalarda hematom riski nedeniyle intramusküler en-
jeksiyondan kaçınılmalı ya da alternatif yol seçilmelidir. Hepatit B ve diğ er int-
ramusküler uygulanan aşılar kanama diyatezi olan hastalarda uygulanacaksa,
uzman gözetiminde uygulanmalıdır. Antihemofilik faktör ya da benzer tedaviler
alan hastalarda, tedaviden kısa süre sonra aşılama yapılması önerilmektedir. An-
tikoagülan tedavi alan hastalar pıhtılaşma faktörü bozuklukları olan hastalar ile
aynı kanama riskine sahiptir ve kas iç i uygulama için aynı yönergeleri izlemelidir.
Mümkünse, bu ilaçların kullanılmaya başlamasından önce aşılama uygulanması
önerilmektedir ⁽⁶⁾.

SONUÇ

Aşılamadaki özel durumlar, pediatri pratiğinde sıklıkla karşılaşılan ve hatalı
uygulamanın doğurabileceğı riskli sonuçlar nedeniyle iyi bilinmesi gereken bir
konudur. Aşılama ile bireye sağlanacak fayda ve zararlar uzman hekim tarafından
değerlendirilmeli ve gereğinde sosyal pediatri/immünoloji/enfeksiyon hastalıkla-
rı bölümlerinden destek alınmalıdır.

KAYNAKÇA

1. National Center for Immunization and Respiratory Diseases. General recommendations on immunization: recommendations of the Advisory Committee on Immunization Practices (ACIP). MMWR Recomm Rep. 2011;60:1-64.
2. Kelso JM. Administration of influenza vaccines to patients with egg allergy. The Journal of allergy and clinical immunology. 2010;125(4):800-802.
3. Wood RA, Berger M, Dreskin SC, et al. An algorithm for treatment of patients with hypersensitivity reactions after vaccines. Pediatrics. 2008;122(3):e771-777.
4. Grohskopf LA, Olsen SJ, Sokolow LZ, et al. Prevention and control of seasonal influenza with vaccines: recommendations of the Advisory Committee on Immunization Practices (ACIP) -- United States, 2014-15 influenza season. MMWR Morbidity and mortality weekly report. 2014;63(32):691-697.
5. Erlewyn-Lajeunesse M, Brathwaite N, Lucas JS, et al. Recommendations for the administration of influenza vaccine in children allergic to egg. Bmj. 2009;339:b3680.
6. Ezeanolue E, Harriman K, Hunter P, et al. General Best Practice Guidelines for Immunization. Best Practices Guidance of the Advisory Committee on Immunization Practices (ACIP). [www.cdc.gov/vaccines/hcp/acip-recs/generalrecs/downloads/general-recs.pdf]. Accessed on 2020, July 7.
7. Marin M, Guris D, Chaves SS, et al. Prevention of varicella: recommendations of the Advisory Committee on Immunization Practices (ACIP). MMWR Recommendations and reports : Morbidity and mortality weekly report Recommendations and reports. 2007;56(RR-4):1-40.

8. Watson JC, Hadler SC, Dykewicz CA, et al. Measles, mumps, and rubella--vaccine use and strategies for elimination of measles, rubella, and congenital rubella syndrome and control of mumps: recommendations of the Advisory Committee on Immunization Practices (ACIP). *MMWR Recommendations and reports : Morbidity and mortality weekly report Recommendations and reports*. 1998;47(RR-8):1-57.
9. Kelso JM, Jones RT, Yunginger JW. Anaphylaxis to measles, mumps, and rubella vaccine mediated by IgE to gelatin. *The Journal of allergy and clinical immunology*. 1993;91(4):867-872.
10. Sakaguchi M, Nakayama T, Inouye S. Food allergy to gelatin in children with systemic immediate-type reactions, including anaphylaxis, to vaccines. *The Journal of allergy and clinical immunology*. 1996;98(6 Pt 1):1058-61.
11. Kroger A, Atkinson W, Pickering L. General immunization practices. In: Plotkin S, Orenstein W, Offit P, eds. *Vaccines*. (6th ed., pp 88-111) China: Elsevier Saunders; 2013.
12. Slater JE. Latex allergy. *The Journal of allergy and clinical immunology*. 1994;94(2 Pt 1):139-49; quiz 50.
13. Rietschel RL, Bernier R. Neomycin sensitivity and the MMR vaccine. *Jama*. 1981;245(6):571.
14. Elliman D, Dhanraj B. Safe MMR vaccination despite neomycin allergy. *Lancet*. 1991;337(8737):365.
15. Kroger A, Atkinson W, Pickering L. General immunization practices. In: Plotkin S, Orenstein W, Offit P, Edwards M, Kathryn eds. *Vaccines*. (7th ed., pp 96-120) China: Elsevier; 2018.
16. Kimberlin DW, Brady MT, Jackson MA, et al. (2015) Red Book: 2015 Report of the Committee on Infectious Diseases. (30th ed.) Elk Grove Village, IL: American Academy of Pediatrics.
17. Aberer W. Vaccination despite thimerosal sensitivity. *Contact dermatitis*. 1991;24(1):6-10.
18. Cox NH, Forsyth A. Thiomersal allergy and vaccination reactions. *Contact dermatitis*. 1988;18(4):229-33.
19. Whitelaw A, Parkin J. Development of immunity. *British medical bulletin*. 1988;44(4):1037-51.
20. Koblin BA, Townsend TR, Munoz A, et al. Response of preterm infants to diphtheria-tetanus-pertussis vaccine. *The Pediatric infectious disease journal*. 1988;7(10):704-11.
21. Smolen P, Bland R, Heiligenstein E, et al. Antibody response to oral polio vaccine in premature infants. *The Journal of pediatrics*. 1983;103(6):917-9.
22. Lau YL, Tam AY, Ng KW, et al. Response of preterm infants to hepatitis B vaccine. *The Journal of pediatrics*. 1992;121(6):962-5.
23. Patel DM, Butler J, Feldman S, et al. Immunogenicity of hepatitis B vaccine in healthy very low birth weight infants. *The Journal of pediatrics*. 1997;131(4):641-3.
24. Kim SC, Chung EK, Hodinka RL, et al. Immunogenicity of hepatitis B vaccine in preterm infants. *Pediatrics*. 1997;99(4):534-6.
25. Losonsky GA, Wasserman SS, Stephens I, et al. Hepatitis B vaccination of premature infants: a reassessment of current recommendations for delayed immunization. *Pediatrics*. 1999;103(2):E14.
26. Mast EE, Margolis HS, Fiore AE, et al. A comprehensive immunization strategy to eliminate transmission of hepatitis B virus infection in the United States: recommendations of the Advisory Committee on Immunization Practices (ACIP) part 1: immunization of infants, children, and adolescents. *MMWR Recommendations and reports : Morbidity and mortality weekly report Recommendations and reports*. 2005;54(RR-16):1-31.
27. Cortese MM, Parashar UD, Centers for Disease C, Prevention. Prevention of rotavirus gastroenteritis among infants and children: recommendations of the Advisory Committee on Immunization Practices (ACIP). *MMWR Recommendations and reports : Morbidity and mortality weekly report Recommendations and reports*. 2009;58(RR-2):1-25.
28. Koren G, Pastuszak A, Ito S. Drugs in pregnancy. *The New England journal of medicine*. 1998;338(16):1128-37.
29. Grabenstein JD. Pregnancy and lactation in relation to vaccines and antibodies. *Pharmacy practice management quarterly*. 2001;20(3):1-10.
30. Munoz FM, Bond NH, Maccato M, et al. Safety and immunogenicity of tetanus diphtheria and acellular pertussis (Tdap) immunization during pregnancy in mothers and infants: a randomized clinical trial. *Jama*. 2014;311(17):1760-9.

31. Kretsinger K, Broder KR, Cortese MM, et al. Preventing tetanus, diphtheria, and pertussis among adults: use of tetanus toxoid, reduced diphtheria toxoid and acellular pertussis vaccine recommendations of the Advisory Committee on Immunization Practices (ACIP) and recommendation of ACIP, supported by the Healthcare Infection Control Practices Advisory Committee (HICPAC), for use of Tdap among health-care personnel. *MMWR Recommendations and reports : Morbidity and mortality weekly report Recommendations and reports*. 2006;55(RR-17):1-37.
32. Centers for Disease C, Prevention. Prevention and control of seasonal influenza with vaccines. Recommendations of the Advisory Committee on Immunization Practices--United States, 2013-2014. *MMWR Recommendations and reports : Morbidity and mortality weekly report Recommendations and reports*. 2013;62(RR-07):1-43.
33. Neuzil KM, Reed GW, Mitchel EF, et al. Impact of influenza on acute cardiopulmonary hospitalizations in pregnant women. *American journal of epidemiology*. 1998;148(11):1094-102.
34. Sumaya CV, Gibbs RS. Immunization of pregnant women with influenza A/New Jersey/76 virus vaccine: reactogenicity and immunogenicity in mother and infant. *The Journal of infectious diseases*. 1979;140(2):141-6.
35. Munoz FM, Greisinger AJ, Wehmanen OA, et al. Safety of influenza vaccination during pregnancy. *American journal of obstetrics and gynecology*. 2005;192(4):1098-106.
36. Steinhoff MC, Omer SB, Roy E, et al. Influenza immunization in pregnancy--antibody responses in mothers and infants. *The New England journal of medicine*. 2010;362(17):1644-6.
37. Prevots DR, Burr RK, Sutter RW, et al. Poliomyelitis prevention in the United States. Updated recommendations of the Advisory Committee on Immunization Practices (ACIP). *MMWR Recommendations and reports : Morbidity and mortality weekly report Recommendations and reports*. 2000;49(RR-5):1-22; quiz CE1-7.
38. Prevention of pneumococcal disease: recommendations of the Advisory Committee on Immunization Practices (ACIP). *MMWR Recommendations and reports : Morbidity and mortality weekly report Recommendations and reports*. 1997;46(RR-8):1-24.
39. Bilukha OO, Rosenstein N, National Center for Infectious Diseases CfDC, Prevention. Prevention and control of meningococcal disease. Recommendations of the Advisory Committee on Immunization Practices (ACIP). *MMWR Recommendations and reports : Morbidity and mortality weekly report Recommendations and reports*. 2005;54(RR-7):1-21.
40. Advisory Committee on Immunization P, Fiore AE, Wasley A, Bell BP. Prevention of hepatitis A through active or passive immunization: recommendations of the Advisory Committee on Immunization Practices (ACIP). *MMWR Recommendations and reports : Morbidity and mortality weekly report Recommendations and reports*. 2006;55(RR-7):1-23.
41. Nuorti JP, Whitney CG, Centers for Disease C, Prevention. Prevention of pneumococcal disease among infants and children - use of 13-valent pneumococcal conjugate vaccine and 23-valent pneumococcal polysaccharide vaccine - recommendations of the Advisory Committee on Immunization Practices (ACIP). *MMWR Recommendations and reports : Morbidity and mortality weekly report Recommendations and reports*. 2010;59(RR-11):1-18.
42. Tomczyk S, Bennett NM, Stoecker C, et al. Use of 13-valent pneumococcal conjugate vaccine and 23-valent pneumococcal polysaccharide vaccine among adults aged ≥ 65 years: recommendations of the Advisory Committee on Immunization Practices (ACIP). *MMWR Morbidity and mortality weekly report*. 2014;63(37):822-5.
43. Marin M, Willis ED, Marko A, et al. Closure of varicella-zoster virus-containing vaccines pregnancy registry - United States, 2013. *MMWR Morbidity and mortality weekly report*. 2014;63(33):732-3.
44. McLean HQ, Fiebelkorn AP, Temte JL, et al. Prevention of measles, rubella, congenital rubella syndrome, and mumps, 2013: summary recommendations of the Advisory Committee on Immunization Practices (ACIP). *MMWR Recommendations and reports : Morbidity and mortality weekly report Recommendations and reports*. 2013;62(RR-04):1-34.

45. Bohlke K, Galil K, Jackson LA, et al. Postpartum varicella vaccination: is the vaccine virus excreted in breast milk? *Obstetrics and gynecology*. 2003;102(5 Pt 1):970-7.
46. Krogh V, Duffy LC, Wong D, et al. Postpartum immunization with rubella virus vaccine and antibody response in breast-feeding infants. *The Journal of laboratory and clinical medicine*. 1989;113(6):695-9.
47. Staples JE, Gershman M, Fischer M, et al. Yellow fever vaccine: recommendations of the Advisory Committee on Immunization Practices (ACIP). *MMWR Recommendations and reports : Morbidity and mortality weekly report Recommendations and reports*. 2010;59(RR-7):1-27.
48. Markert ML, Hummell DS, Rosenblatt HM, et al. Complete DiGeorge syndrome: persistence of profound immunodeficiency. *The Journal of pediatrics*. 1998;132(1):15-21.
49. Medical Advisory Committee of the Immune Deficiency F, Shearer WT, Fleisher TA, et al. Recommendations for live viral and bacterial vaccines in immunodeficient patients and their close contacts. *The Journal of allergy and clinical immunology*. 2014;133(4):961-6.
49. Medical Advisory Committee of the Immune Deficiency F, Shearer WT, Fleisher TA, et al. Recommendations for live viral and bacterial vaccines in immunodeficient patients and their close contacts. *The Journal of allergy and clinical immunology*. 2014;133(4):961-966.
50. Arvas A. Vaccination in patients with immunosuppression. *Türk pediatri arsi*. 2014;49(3):181-5.
51. Rubin LG, Levin MJ, Ljungman P, et al. 2013 IDSA clinical practice guideline for vaccination of the immunocompromised host. *Clinical infectious diseases : an official publication of the Infectious Diseases Society of America*. 2014;58(3):309-18.
52. Kim DK, Bridges CB, Harriman KH, et al. Advisory committee on immunization practices recommended immunization schedule for adults aged 19 years or older--United States, 2015. *MMWR Morbidity and mortality weekly report*. 2015;64(4):91-2.
53. Strikas RA, Centers for Disease C, Prevention, Advisory Committee on Immunization P, Group ACAIW. Advisory committee on immunization practices recommended immunization schedules for persons aged 0 through 18 years--United States, 2015. *MMWR Morbidity and mortality weekly report*. 2015;64(4):93-4.
54. Cohn AC, MacNeil JR, Clark TA, et al. Prevention and control of meningococcal disease: recommendations of the Advisory Committee on Immunization Practices (ACIP). *MMWR Recommendations and reports : Morbidity and mortality weekly report Recommendations and reports*. 2013;62(RR-2):1-28.
55. Folaranmi T, Rubin L, Martin SW, et al. Use of Serogroup B Meningococcal Vaccines in Persons Aged ≥ 10 Years at Increased Risk for Serogroup B Meningococcal Disease: Recommendations of the Advisory Committee on Immunization Practices, 2015. *MMWR Morbidity and mortality weekly report*. 2015;64(22):608-12.
56. Fiore AE, Uyeki TM, Broder K, et al. Prevention and control of influenza with vaccines: recommendations of the Advisory Committee on Immunization Practices (ACIP), 2010. *MMWR Recommendations and reports : Morbidity and mortality weekly report Recommendations and reports*. 2010;59(RR-8):1-62.
57. Levin MJ, Gershon AA, Weinberg A, et al. Administration of live varicella vaccine to HIV-infected children with current or past significant depression of CD4(+) T cells. *The Journal of infectious diseases*. 2006;194(2):247-55.
58. Sprauer MA, Markowitz LE, Nicholson JK, et al. Response of human immunodeficiency virus-infected adults to measles-rubella vaccination. *Journal of acquired immune deficiency syndromes*. 1993;6(9):1013-6.
59. Onorato IM, Markowitz LE, Oxtoby MJ. Childhood immunization, vaccine-preventable diseases and infection with human immunodeficiency virus. *The Pediatric infectious disease journal*. 1988;7(8):588-95.
60. Kimberlin DW, Brady MT, Jackson MA, et al. (2018) *Red Book: 2018-2021 Report of the Committee on Infectious Diseases*. (31th ed.) Itasca, IL: American Academy of Pediatrics.
61. Brodtman DH, Rosenthal DW, Redner A, et al. Immunodeficiency in children with acute lymphoblastic leukemia after completion of modern aggressive chemotherapeutic regimens. *The Journal of pediatrics*. 2005;146(5):654-61.

62. Pickering L, Baker C, Kimberlin D, et al. eds.(2009) Red Book: 2009 Report of the Committee on Infectious Diseases. 28th ed. Elk Grove Village, IL: American Academy of Pediatrics.
63. Ljungman P, Cordonnier C, Einsele H, et al. Vaccination of hematopoietic cell transplant recipients. Bone marrow transplantation. 2009;44(8):521-6.
63. Ljungman P, Cordonnier C, Einsele H, et al. Vaccination of hematopoietic cell transplant recipients. Bone marrow transplantation. 2009;44(8):521-6
64. Centers for Disease C, Prevention. Use of 13-valent pneumococcal conjugate vaccine and 23-valent pneumococcal polysaccharide vaccine among children aged 6-18 years with immunocompromising conditions: recommendations of the Advisory Committee on Immunization Practices (ACIP). MMWR Morbidity and mortality weekly report. 2013;62(25):521-4.
65. Centers for Disease C, Prevention . Advisory Committee on Immunization P. Pneumococcal vaccination for cochlear implant candidates and recipients: updated recommendations of the Advisory Committee on Immunization Practices. MMWR Morbidity and mortality weekly report. 2003;52(31):739-40.