

BÖLÜM 7



Gebelikte Tromboembolik Hastalıklar

Mucize ERİÇ ÖZDEMİR¹

Giriş

Venöz tromboemboli (VTE) 1/1600 sıklıkta görülmekte olup gebelik ve lohusalık dönemi VTE riskini artıran iyi bilinen risk faktörlerindendir. VTE' nin gebelikteki insidansı genel popülasyondan düşük olsa da gebe olmayan kadınlarla karşılaşıldığında risk 4-50 kat artar. Derin ven trombozu (DVT) ise pulmoner emboliden (PE) 3 kat daha fazla sıklıkta görülür. Gebeliğe bağlı fizyolojik değişikliklerle örtüşme nedeniyle gebelik sırasında tanı zor olabilir (1).

Venöz tromboembolizm gebelik boyunca izole alt ekstremité derin ven trombozu olarak seyredebileceği gibi alt ekstremiteden ayrılan pihtının akciğere ulaşması sonucunda PE ile de sonuçlanabilir (2). PE maternal mortalitenin %9'un dan sorumlu olup gelişmiş ülkelerdeki anne ölümlerinde 7. sıradadır (3). Siyah kadınlardaki gebelikle ilişkili mortalite oranı beyaz kadınlarla kıyaslandığında 3-4 kat daha fazladır (4). Son üç dekat boyunca VTE insidansında postpartum insidansındaki azalmaya bağlı olarak düşme gözlenmektedir. Bu düşüş tam açıklanamamakla birlikte postpartum dönemde tromboprofilaksi kullanımındaki artış ile ilişkilendirilmiştir.

¹ Uzm.Dr., SBÜ, Zeynep Kamil Kadın ve Çocuk Hastalıkları Eğitim ve Araştırma Hastanesi Perinatoloji Kliniği, ozdemir.mucize@gmail.com



vasküler yatak önemli ölçüde tehlikede (örneğin, masif PE, pulmoner hipertansiyon) ve hastanın başka ek bir vasküler hasarı tolere etmesi mümkün değil ise gebelik sırasında alt vena kava filtreleri kullanılabilir (41).

Trombolizis, Trombektomi

Trombolitik ajanlar gebelikte kullanılabilir ancak maternal kanama riskini artırır. Bu yüzden, trombolitik tedavi gebelikte akut PE gibi hayatı tehdit eden durumlarla sınırlanmalıdır. Trombektomi ise diğer tedaviler başarısız olduğunda değerlendirilmesi gereken bir yöntemdir.

Sonuç

Gebelik ve lohusalık döneminde VTE şüphesi oluştduğunda görüntüleme yöntemleri etkin ve hızlı bir şekilde kullanılarak tedavi en kısa sürede planlanmalıdır. Görüntüleme yöntemlerinin öncelik sırası ve tedavi planında kişisel farklılıklar göz önünde bulundurulmalıdır.

Kaynaklar

1. Marik PE, Plante LA. Venous thromboembolic disease and pregnancy. *N Engl J Med* 2008;359:2025.
2. Bourjeily G, Poidas M, Khalil H, et al. Pulmonary embolism in pregnancy. *Lancet* 2010;375:500.
3. Chang J, Elam-Evans LD, Berg CJ, et al. Pregnancy-related mortality surveillance-United States, 1991-1999. *MMWR Surveill Summ*. 2003;52:1.
4. Blondon M, Harrington LB, Righini M, et al. Racial and ethnic differences in the risk of postpartum venous thromboembolism: a population-based, case-control study. *J Thromb Haemost*. 2014;12:2002.
5. Simpson EL, Lawrenson RA, Nightingale Al, et al, Venous thromboembolism in pregnancy and the puerperium: incidence and additional risk factors from a London perinatal database. *BJOG*. 2001;108:56.
6. Sultan AA, Tata LJ, West J, et al. Risk factors for first venous thromboembolism around pregnancy: a population-based cohort study from the United Kingdom. *Blood*. 2013;121:3953.
7. Abdul Sultan A, West J, Tata LJ, et al. Risk of first venous thromboembolism in pregnant women in hospital: population based cohort study from England. *BMJ*. 2013;347:6099.
8. Zott RB, Gerhardt A, Scharf RE. Inherited thrombophilia and gestational venous thromboembolism. *Best Pract Res Clin Haematol*. 2003;16:243.
9. Rutherford S, Montoro M, McGehee W, et al. Thromboembolic disease associated with pregnancy: an 11-year review. *Am J Obstet Gynecol*. 1991;64:286.
10. Kearon JA, Ginsberg JS, Hirsh J. The role of venous ultrasonography in the diagnosis of suspected deep venous thrombosis and pulmonary embolism. *Ann Intern Med*. 1998;129:1044.
11. Chan WS, Lee A, Spencer FA, et al. D-dimer testing in pregnant Patients: towards determining the next 'level' in the diagnosis of deep vein thrombosis. *J Thromb Haemost*. 2010;8:1004.
12. Macklon NS, Greer IA, Bowman AW, et al. An ultrasound study of gestational and postural changes in the deep venous system of the leg in pregnancy. *Br J Obstet Gynaecol*. 1997;104:191.



13. Wells PS, Hirsh J, Anderson DR, et al. Comparison of the accuracy of impedance plethysmography and compression ultrasonography in outpatients with clinically suspected deep vein thrombosis. A two centre paired-design prospective trial. *Thromb Haemost.* 1995;74:1423.
14. Chan WS, Spencer FA, Lee AY, et al. Safety of withholding anticoagulation in pregnant women with suspected deep vein thrombosis following negative serial compression ultrasound and iliac vein imaging. *CMAJ.* 2013;185:194.
15. Torkzad MR, Bremme K, Hellgren M, et al. Magnetic resonance imaging and ultrasonography in diagnosis of pelvic vein thrombosis during pregnancy. *Thromb Res.* 2010;126:107.
16. Bates SM, Jaeschke R, Stevens SM, et al. Diagnosis of DVT: Antithrombotic Therapy and Prevention of Thrombosis, 9th ed: American College of Chest Physicians Evidence-Based Clinical Practice Guidelines. *Chest.* 2012;141:351.
17. Bates SM, Greer IA, Middeldorp S, et al. VTE, thrombophilia, antithrombotic therapy, and pregnancy: Antithrombotic Therapy and Prevention of Thrombosis, 9th ed: American College of Chest Physicians Evidence-Based Clinical Practice Guidelines. *Chest.* 2012;141:691.
18. American College of Obstetricians and Gynecologists Women's Health Care Physicians. ACOG Practice Bulletin No.138: Inherited thrombophilias in pregnancy. *Obstet Gynecol.* 2013;122:706.
19. Bates SM, Rajasekhar A, Middeldorp S, et al. American Society of Hematology 2018 guidelines for management of venous thromboembolism: venous thromboembolism in the context of pregnancy. *Blood Adv.* 2018;2:317.
20. NICE (2020). Venous thromboembolic diseases: diagnosis, management and thrombophilia testing. (26/03/2020 tarihinde <http://www.nice.org.uk/nicemedia/live/12695/47195/47195.pdf> adresinden ulaşılmıştır).
21. Norgren L, Austrell C, Nilsson L. The effect of graduated elastic compression stockings on femoral blood flow velocity during late pregnancy. *Vasa.* 1995;24:282.
22. Gherman RB, Goodwin TM, Leung B, et al. Incidence, clinical characteristics, and timing of objectively diagnosed venous thromboembolism during pregnancy. *Obstet Gynecol.* 1999;94:730.
23. Goodacre S, Horspool K, Nelson-Piercy C, et al. The DiPEP study: an observational study of the diagnostic accuracy of clinical assessment, D-dimer and chest x-ray for suspected pulmonary embolism in pregnancy and postpartum. *BJOG.* 2019;126:383.
24. Powrie RO, Larson L, Rosene-Montella K, et al. Alveolar-arterial oxygen gradient in acute pulmonary embolism in pregnancy. *Am J Obstet Gynecol.* 1998;178:394.
25. Damodaram M, Kaladindi M, Luckit J, et al. D-dimers as a screening test for venous thromboembolism in pregnancy: is it of any use? *J Obstet Gynaecol.* 2009;29:101.
26. Gottschalk A, Stein PD, Goodman LR, et al. Overview of Prospective Investigation of Pulmonary Embolism Diagnosis II. *Semin Nucl Med.* 2002;32:173.
27. Leung AN, Bull TM, Jaeschke R, et al. An official American Thoracic Society/Society of Thoracic Radiology clinical practice guideline: evaluation of suspected pulmonary embolism in pregnancy. *Am J Respir Crit Care Med.* 2011;184:1200.
28. PIODED Investigators. Value of the ventilation/perfusion scan in acute pulmonary embolism. Results of the prospective investigation of pulmonary embolism diagnosis (PIODED). *JAMA.* 1990;263:2753.
29. Cahill AG, Stout MJ, Macones GA, et al. Diagnosing pulmonary embolism in pregnancy using computed-tomographic angiography or ventilation-perfusion. *Obstet Gynecol.* 2009;114:124.
30. Revel MP, Cohen S, Sanchez O, et al. Pulmonary embolism during pregnancy: diagnosis with lung scintigraphy or CT angiography? *Radiology.* 2011;258:590.
31. Shakir K, Goodman LR, Tali A, et al. Pulmonary embolism in pregnancy: CT pulmonary angiography versus perfusion scanning. *AJR Am J Roentgenol.* 2010;195:214.



32. U-King-Im JM, Freeman SJ, Boylan T, et al. Quality of CT pulmonary angiography for suspected pulmonary embolus in pregnancy. *Eur Radiol*. 2008;18:2709.
33. Meaney JF, Weg JG, Chenevert TL, et al. Diagnosis of pulmonary embolism with magnetic resonance angiography. *N Engl J Med*. 1997;336:1422.
34. Wittram C, Waltman AC, Shepard JA, et al. Discordance between CT and angiography in the PIODED II study. *Radiology*. 2007;244:883.
35. Chan WS, Rey E, Kent NE, et al. Venous thromboembolism and antithrombotic therapy in pregnancy. *J Obstet Gynaecol Can*. 2014;36:527.
36. RCOG (2021). Thromboembolic disease in pregnancy and the puerperium: Acute management. (06/03/2021 tarihinde <http://www.rcog.org.uk/globalassets/documents/guidelines/gtg-37b.pdf> adresinden ulaşılmıştır).
37. Konstantinides SV, Meyer G, Becattini C, et al. 2019 ESC Guidelines for the diagnosis and management of acute pulmonary embolism developed in collaboration with the European Respiratory Society (ERS): The Task Force for the diagnosis and management of acute pulmonary embolism of the European Society of Cardiology (ESC). *Eur Respir J*. 2019;54.
38. Cohen H, Arachchillage DR, Middeldorp S, et al. Management of direct oral anticoagulants in women of childbearing potential: guidance from the SSC of the ISTH. *J Thromb Haemost*. 2016;14:1673.
39. Beyer-Westendorf J, Michalski F, Tittl L, et al. Pregnancy outcome in patients exposed to direct oral anticoagulants-and the challenge of event reporting. *Thromb Haemost*. 2016;116:651.
40. Dulitzki M, Pauzner R, Langevitz P, et al. Low-molecular-weight-heparin during pregnancy and delivery: preliminary experience with 41 pregnancies. *Obstet Gynecol*. 1996;87:380.
41. Milford W, Chadha Y, Lust K. Use of a retrievable inferior vena cava filter in term pregnancy: case report and review of literature. *Aust N Z J Obstet Gynaecol*. 2009;49:331.