

POSTOPERATİF VE POSTPARTUM KANAMALAR

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GİRİŞ

Obstetrik kanamalar, doğumun en yaygın ve tehlikeli komplikasyonudur. Günümden hem gelişmiş hem de gelişmekte olan ülkelerde anne ölümünün onde gelen sebeplerindendir. Bununla birlikte antibiyotik ve steril tekniklerin keşfi, anestezi-de iyileşme, hastane içi doğumlarda artış ve kan nakli süreçlerinde iyileşme gibi tıbbi ve teknolojik ilerlemeler nedeniyle gebeliğe bağlı ölüm oranı önemli ölçüde düşmüştür (1). Yine postpartum kanama profilaksisinin rutin olarak kullanılması durumu bir nebze daha iyileştirmeye devam etmektedir. Halen maternal morta-lite ve morbidite oranlarında iyileşmeye yönelik stratejiler, dünyada ve ülkemizde bu alanda özelleşmiş kurum ve kişilerce geliştirilmeye devam edilmektedir.

Geleneksel olarak, doğum sonrası kanama, vajinal doğumda 500 mLden fazla tahmini kan kaybı veya sezaryen doğum sırasında 1000 mLden fazla tahmini kan kaybı olarak tanımlanmıştır. Bu tanım, 2017'de American College of Obstetrics and Gynecology (ACOG) tarafından "1000 ml veya daha fazla kan kaybı veya doğum şekline bakılmaksızın doğumdan sonraki 24 saat içinde ortaya çıkan hipovolemi belirtileri veya semptomları ile kan kaybı" olarak yeniden tanımlandı. Bu değişiklik doğum sırasındaki kan kaybının rutin olarak hafife alındığı bilgi-syle yapılrken, vajinal doğum sırasındaki 500 mLden büyük kan kaybı, potansiyel müdahale ihtiyacı ile anormal kabul edilmelidir. Primer postpartum kanama doğumdan sonraki ilk 24 saat içinde meydana gelen kanamadır, sekonder post-partum kanama ise doğumdan 24 saat ile 12 hafta sonra meydana gelen kanama olarak karakterize edilir(2-4).

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REFERANSLAR

1. Hirshberg A, Srinivas SK. Epidemiology of maternal morbidity and mortality. *Semin Perinatol.* 2017;41(6):332-7.
2. Alemu FM, Fuchs MC, Martin Vitale T, Abdalla Mohamed Salih M. Severe maternal morbidity (near-miss) and its correlates in the world's newest nation: South Sudan. *Int J Womens Health.* 2019;11:177-90.
3. Arnold MJ, Keung JJ, McCarragher B. Interventional Radiology: Indications and Best Practices. *Am Fam Physician.* 2019;99(9):547-56.
4. Oliveira MI, da Costa VS, Mer S, Osorio J, Martins AP. Thrombocytopenia in pregnancy, a challenge in the intensive care unit (ICU). *Rev Esp Anestesiol Reanim.* 2019;66(7):385-9.
5. Pritchard JA. Changes in the Blood Volume during Pregnancy and Delivery. *Anesthesiology.* 1965;26:393-9.
6. Khan KS, Wojdyla D, Say L, Gulmezoglu AM, Van Look PF. WHO analysis of causes of maternal death: a systematic review. *Lancet.* 2006;367(9516):1066-74.
7. Creanga AA, Syverson C, Seed K, Callaghan WM. Pregnancy-Related Mortality in the United States, 2011-2013. *Obstet Gynecol.* 2017;130(2):366-73.
8. Pates JA, Hatab MR, McIntire DD, Cunningham FG, Twickler DM. Determining uterine blood flow in pregnancy with magnetic resonance imaging. *Magn Reson Imaging.* 2010;28(4):507-10.
9. Lockwood CJ, Krikun G, Rahman M, Caze R, Buchwalder L, Schatz F. The role of deciduation in regulating endometrial hemostasis during the menstrual cycle, gestation, and in pathological states. *Semin Thromb Hemost.* 2007;33(1):111-7.
10. Mousa HA, Blum J, Abou El Senoun G, Shakur H, Alfirevic Z. Treatment for primary postpartum haemorrhage. *Cochrane Database Syst Rev.* 2014(2):CD003249.
11. Caughey AB, Shipp TD, Repke JT, Zelop CM, Cohen A, Lieberman E. Rate of uterine rupture during a trial of labor in women with one or two prior cesarean deliveries. *Am J Obstet Gynecol.* 1999;181(4):872-6.
12. Macones GA, Cahill A, Pare E, Stamilio DM, Ratcliffe S, Stevens E, et al. Obstetric outcomes in women with two prior cesarean deliveries: is vaginal birth after cesarean delivery a viable option? *Am J Obstet Gynecol.* 2005;192(4):1223-8; discussion 8-9.
13. Zelop CM, Shipp TD, Repke JT, Cohen A, Caughey AB, Lieberman E. Uterine rupture during induced or augmented labor in gravid women with one prior cesarean delivery. *Am J Obstet Gynecol.* 1999;181(4):882-6.
14. Nkwabong E, Kouam L, Takang W. Spontaneous uterine rupture during pregnancy: case report and review of literature. *Afr J Reprod Health.* 2007;11(2):107-12.
15. Hostetler DR, Bosworth MF. Uterine inversion: a life-threatening obstetric emergency. *J Am Board Fam Pract.* 2000;13(2):120-3.
16. Martinez W. Abnormal Adherence of the Placenta: Placenta Accreta, Increta, Percreta. *MD Advis.* 2015;8(4):32-4.
17. Hung TH, Shau WY, Hsieh CC, Chiu TH, Hsu JJ, Hsieh TT. Risk factors for placenta accreta. *Obstet Gynecol.* 1999;93(4):545-50.
18. Lim PS, Greenberg M, Edelson MI, Bell KA, Edmonds PR, Mackey AM. Utility of ultrasound and MRI in prenatal diagnosis of placenta accreta: a pilot study. *AJR Am J Roentgenol.* 2011;197(6):1506-13.
19. Akladios CY, Sananes N, Gaudineau A, Boudier E, Langer B. [Secondary postpartum hemorrhage]. *J Gynecol Obstet Biol Reprod (Paris).* 2014;43(10):1161-9.
20. Abdul-Kadir R, McLintock C, Ducloy AS, El-Refaei H, England A, Federici AB, et al. Evaluation and management of postpartum hemorrhage: consensus from an international expert panel. *Transfusion.* 2014;54(7):1756-68.
21. Rath WH. Postpartum hemorrhage--update on problems of definitions and diagnosis. *Acta Obstet Gynecol Scand.* 2011;90(5):421-8.

22. Collaborators WT. Effect of early tranexamic acid administration on mortality, hysterectomy, and other morbidities in women with post-partum haemorrhage (WOMAN): an international, randomised, double-blind, placebo-controlled trial. *Lancet.* 2017;389(10084):2105-16.
23. Darwish AM, Abdallah MM, Shaaban OM, Ali MK, Khalaf M, Sabra AMA. Bakri balloon versus condom-loaded Foley's catheter for treatment of atonic postpartum hemorrhage secondary to vaginal delivery: a randomized controlled trial. *J Matern Fetal Neonatal Med.* 2018;31(6):747-53.
24. Sahin H, Soylu Karapinar O, Sahin EA, Dolapcioglu K, Baloglu A. The effectiveness of the double B-lynch suture as a modification in the treatment of intractable postpartum haemorrhage. *J Obstet Gynaecol.* 2018;38(6):796-9.
25. Kim TH, Lee HH, Kim JM, Ryu AL, Chung SH, Seok Lee W. Uterine artery embolization for primary postpartum hemorrhage. *Iran J Reprod Med.* 2013;11(6):511-8.
26. Meher S, Cuthbert A, Kirkham JJ, Williamson P, Abalos E, Aflaifel N, et al. Core outcome sets for prevention and treatment of postpartum haemorrhage: an international Delphi consensus study. *BJOG.* 2019;126(1):83-93.
27. Dahlke JD, Mendez-Figueroa H, Maggio L, Hauspurg AK, Sperling JD, Chauhan SP, et al. Prevention and management of postpartum hemorrhage: a comparison of 4 national guidelines. *Am J Obstet Gynecol.* 2015;213(1):76 e1- e10.
28. Leduc D, Senikas V, Lalonde AB, Clinical Practice Obstetrics C. Active management of the third stage of labour: prevention and treatment of postpartum hemorrhage. *J Obstet Gynaecol Can.* 2009;31(10):980-93.
29. Vogel JP, Oladapo OT, Dowswell T, Gulmezoglu AM. Updated WHO recommendation on intravenous tranexamic acid for the treatment of post-partum haemorrhage. *Lancet Glob Health.* 2018;6(1):e18-e9.
30. American College of O, Gynecologists. ACOG Practice Bulletin: Clinical Management Guidelines for Obstetrician-Gynecologists Number 76, October 2006: postpartum hemorrhage. *Obstet Gynecol.* 2006;108(4):1039-47.
31. Higgins N, Patel SK, Toledo P. Postpartum hemorrhage revisited: new challenges and solutions. *Curr Opin Anaesthesiol.* 2019;32(3):278-84.
32. Wikkelso A, Wetterslev J, Moller AM, Afshari A. Thromboelastography (TEG) or rotational thromboelastometry (ROTEM) to monitor haemostatic treatment in bleeding patients: a systematic review with meta-analysis and trial sequential analysis. *Anaesthesia.* 2017;72(4):519-31.
33. Snegovskikh D, Souza D, Walton Z, Dai F, Rachler R, Garay A, et al. Point-of-care viscoelastic testing improves the outcome of pregnancies complicated by severe postpartum hemorrhage. *J Clin Anesth.* 2018;44:50-6.
34. Liumbruno GM, Liumbruno C, Rafanelli D. Intraoperative cell salvage in obstetrics: is it a real therapeutic option? *Transfusion.* 2011;51(10):2244-56.
35. Yan H, Hu LQ, Wu Y, Fan Q, Wong CA, McCarthy RJ. The Association of Targeted Cell Salvage Blood Transfusion During Cesarean Delivery With Allogeneic Packed Red Blood Cell Transfusions in a Maternity Hospital in China. *Anesth Analg.* 2018;127(3):706-13.
36. Rebarber A, Lonser R, Jackson S, Copel JA, Sipes S. The safety of intraoperative autologous blood collection and autotransfusion during cesarean section. *Am J Obstet Gynecol.* 1998;179(3 Pt 1):715-20.
37. Khan KS, Moore PAS, Wilson MJ, Hooper R, Allard S, Wrench I, et al. Cell salvage and donor blood transfusion during cesarean section: A pragmatic, multicentre randomised controlled trial (SALVO). *PLoS Med.* 2017;14(12):e1002471.
38. Practice Guidelines for Obstetric Anesthesia: An Updated Report by the American Society of Anesthesiologists Task Force on Obstetric Anesthesia and the Society for Obstetric Anesthesia and Perinatology. *Anesthesiology.* 2016;124(2):270-300.