Bölüm
13

UTERİN ATONİ İLİŞKİLİ KANAMALAR

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GİRİŞ

Uterin atoni doğumdan sonra myometrium tabakasının yeteri kadar kasılamamasıdır. Plasentanın doğumdan sonra ayrılması ile desidual yüzeyde açığa çıkan spiral aterlerdeki kanamanın durması için öncelikle myometriumdaki kas liferinin kasılarak bu damarları komprese etmesi gerekmektedir. Myometrium tabakasında oluşan bu mekanik kompresyonu, pıtılaşma sisteminin derveye girmesi ile spiral arterlerde oluşan pıhtının damarların lümenini tıkaması izler. Myometriumun doğumdan hemen sonra herhangi bir sebeple yeteri kadar kasılamamasından dolayı oluşan postpartum kanamaya uterin atoni kanaması denir.

ETİYOLOJİ VE İNSİDANS

Postpartum kanamalar; doğumdan sonraki ilk 24 saatte olan primer ve 24 saat ile doğum sonrası 6 hafta arasında olan sekonder kanamalar diye ikiye ayrılır. Primer postpartum kanama klinik bir bulgudur ve etiyolojisinin belirlenmesinde '4T' kuralı vardır (tablo 1).

Tablo 1: Primer postpartum kanama etiyolojisinde '4T'
Tonus: Uterin atoni (%80)
Travma: Vaginal, servikal, uterin (%20)
Tissue: Plasenta retansiyonu veya pıhtı
Trombin: Koagülopati

Primer postpartum kanamaların en sık sebebi uterin atoni kanamasıdır(1). Uterin atoni kanaması tanısı, doğumdan sonra yumuşak, kontrakte olmamış bir

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intraoperatif kan kaybının daha az olduğu saptanmıştır. Hastanede kalış süresi, yoğun bakım gereksinimi, üriner sistem yaralanması veya yara yeri enfeksiyonu gibi postoperatif komplikasyonlar ise her iki grupta benzer bulunmuştur(50). Özellikle plasenta invazyon anomalisi olmayan veya üriner sistem hasarı riski oluşturabilecek aşırı yapışıklıkları olan hastalarda postpartum atoni kanamasında subtotal histerektomi tercih edilebilir.

SONUÇ

Daha önce postpartum kanama geçiren hastaların sonraki gebeliklerinde tekrar postpartum kanama görülme oranı %15'dir(51). Postpartum kanamaların en sık sebebi olan uterin atoni kanaması için risk faktörlerinin bilinmesi ve doğum öncesi gerekli hazırlıkların yapılması hayat kurtarıcı olacaktır.

Anahtar Kelimeler: uterin atoni, atoni kanaması, postpartum kanama

REFERANSLAR

1. Bateman BT, Berman MF, Riley LE, et al. The epidemiology of postpartum hemorrhage in a large, nationwide sample of deliveries. Anesth Analg. 2010;110: 1368–1373.
2. Dildy GA: Postpartum hemorrhage: New management options. Clin Obstet Gynecol 2002; 45:330.
3. Wetta, L. A., Szychowski, J. M., Seals, S., et al. Risk factors for uterine atony/postpartum hemorrhage requiring treatment after vaginal delivery. Am J Obstet Gynecol. 2013 Jul; 209(1): 51.e1–51.e6. Doi:10.1016/j.ajog.2013.03.011.
4. Rouse DJ., Leindecker, S., Landon, M., et al. The MFMU Cesarean Registry: Uterine atony after primary cesarean deliveryAm J Obstet Gynecol. 2005 Sep;193(3 Pt 2):1056-60. Doi:10.1016/j.ajog.2005.07.077.
5. Babinszki A, Kerenyi T, Torok O, et al. Perinatal outcome in grand and great-grand multiparity: effects of parity on obstetric risk factors. Am J Obstet Gynecol. 1999 Sep;181(3):669-74. Doi:10.1016/s0002-9378(99)70511-9.
6. Driessen M, Bouvier-Colle MH, Dupont C, et al. Postpartum hemorrhage resulting from uterine atony after vaginal delivery: factors associated with severity. Obstet Gynecol. 2011 Jan;117(1):21-31. Doi:10.1097/AOG.0b013e318202c845.
7. Hall MH, Halliwell R, Carr-Hill R. Concomitant and repeated happenings of complications of the third stage of labor. Br J Obstet Gynaecol 92:732-738, 1985. Doi:10.1111/j.1471-0528.1985.tb01456.x
8. Waterstone M, Bewley S, Wolfe C. Incidence and predictors of severe obstetric morbidity: Case control study. Br Med J 322:1089-1094, 2001. Doi:10.1136/bmj.322.7294.1089
9. Rouse DJ, MacPherson C, Landon M, et al. Blood transfusion and cesarean delivery. Obstet Gynecol. 2006 Oct;108(4):891-7. Doi:10.1097/01.AOG.0000236547.35234.8c.
10. Clark SL, Yeh SY, Phelan JP, et al. Emergency hysterectomy for obstetric hemorrhage. Obstet Gynecol 64:376-380, 1984.
11. Cunningham FG, Leveno KJ, Bloom SL, Spong CY, Dashe JS, Hoffman BL, Casey BM & Sheffield JS. (2016). Williams Obstetrik. (Gökhan YILDIRIM, Çev. Ed.) İstanbul: Nobel Tıp Kitabevleri
12. Brosens I, Dixon HG. The anatomy of the maternal side of the placenta. J Obstet Gynaecol Br Commonw. 1966 Jun;73(3):357-63. Doi:10.1111/j.1471-0528.1966.tb05175.x
13. Pates JA, Hatab MR, McIntire DD, et al. Determining uterine blood flow in pregnancy with

magnetic resonance imaging. Magn Reson Imaging. 2010 May;28(4):507-10. Doi: 10.1016/j.mri.2009.12.009.
14. Sheldon WR, Blum J, Vogel JP, et al. Postpartum haemorrhage management, risks, and maternal outcomes: findings from the World Health Organization Multicountry Survey on Maternal and Newborn Health. BJOG. 2014 Mar;121 Suppl 1:5-13. Doi:10.1111/1471-0528.12636
15. ACOG Practice Bulletin No. 183: Postpartum Hemorrhage. Obstet Gynecol. 2017 Oct;130(4):e168-e186. Doi: 10.1097/AOG.0000000000002351.
16. Prevention and Management of Postpartum Haemorrhage: Green-top Guideline No. 52. BJOG. 2017 Apr;124(5):e106-e149. Doi: 10.1111/1471-0528.14178.
17. Leduc D, Senikas V, Lalonde AB. Active management of the third stage of labour: prevention and treatment of postpartum hemorrhage. J Obstet Gynaecol Can. 2009 Oct;31(10):980-993. Doi:10.1016/S1701-2163(16)34329-8.
18. Prendiville WJ, Harding JE, Elbourne DR, et al. The Bristol third stage trial: active versus physiological management of third stage of labour. BMJ. 1988 Nov 19;297(6659):1295-300. Doi:10.1136/bmj.297.6659.1295
19. Combs CA, Laros RK Jr. Prolonged third stage of labor: morbidity and risk factors. Obstet Gynecol. 1991 Jun;77(6):863-7.
20. World Health Organization : WHO Recommendations for the Prevention and Treatment of Postpartum Haemorrhage. 2018.
21. Abdel-Aleem H, Singata M, Abdel-Aleem M, et al. Uterine massage to reduce postpartum hemorrhage after vaginal delivery. Int J Gynaecol Obstet. 2010 Oct;111(1):32-6. Doi: 10.1016/j.ijgo.2010.04.036.
22. Arthur P, Taggart MJ, Mitchell BF. Oxytocin and parturition: a role for increased myometrial calcium and calcium sensitization? Front Biosci 2007; 12: 619-33.
23. Soltani H, Hutchon DR, Poulose TA.Timing of prophylactic uterotonics for the third stage of labour after vaginal birth. Cochrane Database Syst Rev. 2010 Aug 4;(8):CD006173. Doi: 10.1002/14651858.CD006173.pub2.
24. World Health Organization. (2018). WHO recommendations Uterotonics for the prevention of postpartum haemorrhage: Web annex 7: Choice of uterotonic agents. World Health Organization. https://apps.who.int/iris/handle/10665/277283.
25. Breathnach F, Geary,M. Uterine Atony: Definition, Prevention, Nonsurgical Management, and Uterine Tamponade. Semin Perinatol. 2009 Apr;33(2):82-7. Doi: 10.1053/j.semperi.2008.12.001.
26. Shakur H, Roberts I, Fawole B, et al. 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 May 27;389(10084):2105-2116. Doi: 10.1016/S0140-6736(17)30638-4.
27. Vogel JP, Oladapo OT, Dowswell T et al. Updated WHO recommendation on intravenous tranexamic acid for the treatment of post-partum haemorrhage. Lancet Glob Health. 2018 Jan;6(1):e18-e19. Doi: 10.1016/S2214-109X(17)30428-X.
28. Hedner U. Recombinant factor VIIa (Novoseven) as a hemostatic agent. Semin Hematol. 2001 Oct;38(4 Suppl 12):43-7.
29. Sobieszczyk S, Breborowicz GH. (2012). The Use of Recombinant Factor VIIa. S. Arulkumaran , M. A. Karoshi , L.G. Keith , A.B. Lalonde , C. B-Lynch (Eds.), A Comprehensive Textbook of Postpartum Hemorrhage : An Essential Clinical Reference for Effective Management (2nd ed., pp.415-430). London: The Global Library of Women's Medicine.
30. Bakri YN. Uterine tamponade-drain for hemorrhage secondary to placenta previa-accreta. Int J Gynaecol Obstet. 1992 Apr;37(4):302-3. Doi: 10.1016/0020-7292(92)90336-h.
31. Bakri YN, Amri A, Abdul Jabbar F. Tamponade-balloon for obstetrical bleeding. Int J Gynaecol Obstet. 2001 Aug;74(2):139-42. Doi: 10.1016/s0020-7292(01)00395-2.
32. Georgiou C. Balloon tamponade in the management of postpartum haemorrhage: a review. BJOG. 2009 May;116(6):748-57. Doi: 10.1111/j.14710528.2009.02113.x.

33. Lo A, St. Marie P, Yadav P, et. all. The impact of Bakri balloon tamponade, on the rate of postpartum hysterectomy for uterine atony. J Matern Fetal Neonatal Med. 2017 May;30(10):1163-1166. Doi: 10.1080/14767058.2016.1208742.
34. Zwart JJ, Dijk PD, van Roosmalen J. Peripartum hysterectomy and arterial embolization for major obstetric hemorrhage: a 2-year nationwide cohort study in the Netherlands. Am J Obstet Gynecol. 2010 Feb;202(2):150.e1-7. Doi: 10.1016/j.ajog.2009.09.003.
35. Likis FE, Sathe NA, Morgans AK, et al. Management of Postpartum Hemorrhage. Comparative Effectiveness Review No. 151. AHRQ Publication No. 15-EHC013-EF. Rockville (MD): Agency for Healthcare Research and Quality (US); 2015.
36. B-Lynch C, Coker A, Lawal AH, et al. The B-Lynch surgical technique for the control of massive postpartum haemorrhage: an alternative to hysterectomy? Five cases reported. Br J Obstet Gynaecol. 1997 Mar;104(3):372-5. Doi:10.1111/j.1471-0528.1997.tb11471.x.
37. Allam MS, B-Lynch C.The B-Lynch and other uterine compression suture techniques. Int J Gynaecol Obstet. 2005 Jun;89(3):236-41. Doi:10.1016/j.ijgo.2005.02.014.
38. Hayman RG, Arulkumaran S, Steer PJ. Uterine compression sutures: surgical management of postpartum hemorrhage. Obstet Gynecol. 2002 Mar;99(3):502-6. Doi: 10.1016/s0029-7844(01)01643-x.
39. Cho JH, Jun HS, Lee CN.Hemostatic suturing technique for uterine bleeding during cesarean delivery. Obstet Gynecol. 2000 Jul;96(1):129-131. Doi: 10.1016/s0029-7844(00)00852-8.
40. Kayem G, Kurinczuk JJ, Alfirevic Z, et al. Uterine compression sutures for the management of severe postpartum hemorrhage. Obstet Gynecol. 2011 Jan;117(1):14-20. Doi: 10.1097/aog.0b013e318202c596.
41. Kaya B, Guralp O, Tuten A, et al. Which uterine sparing technique should be used for uterine atony during cesarean section? The Bakri balloon or the B-Lynch suture? Arch Gynecol Obstet. 2016 Sep;294(3):511-7. Doi: 10.1007/s00404-016-4015-z.
42. Joshi VM, Shrivastava M. Partial ischemic necrosis of the uterus following a uterine brace compression suture. BJOG. 2004 Mar;111(3):279-80. Doi: 10.1111/j.1471-0528.2004.00056.x.
43. Treloar EJ, Anderson RS, Andrews HS, et al. Uterine necrosis following B-Lynch suture for primary postpartum haemorrhage. BJOG. 2006 Apr;113(4):486-8. Doi:10.1111/j.1471-0528.2006.00890.x.
44. WATERS EG. Surgical management of postpartum hemorrhage with particular reference to ligation of uterine arteries. Am J Obstet Gynecol. 1952 Nov;64(5):1143-8. Doi:10.1016/0002-9378(52)90377-3
45. O'Leary JL, O'Leary JA. Uterine artery ligation in the control of intractable postpartum hemorrhage. Am J Obstet Gynecol. 1966 Apr 1;94(7):920-4. Doi: 10.1016/0002-9378(66)90026-3.
46. O'Leary JA, O'Leary JL. Uterine artery ligation for control of postcesarean hemorrhage. Surg Forum. 1968;19:409-10.
47. Doumouchtsis SK, Nikolopoulos K, Talaulikar V, et al. Menstrual and fertility outcomes following the surgical management of postpartum haemorrhage: a systematic review. BJOG. 2014 Mar;121(4):382-8. Doi: 10.1111/1471-0528.12546.
48. Burchell RC. Physiology of internal iliac artery ligation. J Obstet Gynaecol Br Commonw 1968; 75: 642-51. Doi: 10.1111/j.1471-0528.1968.tb00175.x.
49. Nizard J, Barrinque L, Frydman R, et al. Fertility and pregnancy outcomes following hypogastric artery ligation for severe post-partum haemorrhage. Hum Reprod. 2003 Apr;18(4):844-8. Doi: 10.1093/humrep/deg161.
50. Zhang Y, Yan J, Han Q, et al. Emergency obstetric hysterectomy for life-threatening postpartum hemorrhage: A 12-year review. Medicine (Baltimore). 2017 Nov;96(45):e8443. Doi: 10.1097/MD.0000000000008443.
51. Ford JB, Roberts CL, Bell JC, et al. Postpartum haemorrhage occurrence and recurrence: a population-based study. Med J Aust. 2007 Oct 1;187(7):391-3.