

## **Bölüm 14**

# **ERAS PROTOKOLLERİ DOĞRULTUSUNDA POSTOPERATİF AĞRI YÖNETİMİ**

**Merve ERGENÇ<sup>1</sup>**

Enhance recovery after surgery (ERAS) protokolleri , cerrahi sonrası iyileşmeyi hızlandırmak ve komplikasyonları azaltmak için ERAS derneğince tasarlanmış perioperatif bakım kılavuzlarıdır. Hasta sonuçlarını iyileştirirken sağlık sisteminin kaynaklarının optimal kullanımını mümkün kılması nedeniyle son yıllarda giderek popülerleşmektedir. (1) Cerrahi nedenli stresi azaltmak, sistemlerin fonksiyonlarının normale dönüşünü hızlandırmak ve hastanın en kısa sürede günlük hayata dönmesini sağlamak esastır. Cerrahi travmaya karşı gelişen metabolik stres yanıtını azaltmak iyileşmeyi hızlandırır. Bu ERAS protokollerinin temel yaklaşımını oluşturur. ERAS uygulamaları ancak multidisipliner bir ekip ile mümkündür. Hastaneye başvuru anından taburculuk sonrası evde istirahat dönemine kadar hastanın karşılaştığı tüm sağlık profesyonellerinin protokole aşına olması ideal olmalıdır. ERAS protokolleri ile geleneksel cerrahi ve anestezi uygulamaları sorgulanmaya ve kanıta dayalı yeni uygulamaların önü açılmaya başlanmaktadır. Kolorektal, hepatobilier,ürolojik ve jinekolojik operasyonlar özelinde ERAS kılavuzları yayınlanmaktadır. Ağrı kontrolü metabolik stres yanıtını azaltacağı, hasta konforunu artıracacağı ve taburculuğu hızlandıracağı için postoperatif dönemdeki en önemli basamaklardandır.

### **OPIOİD ANALJEZİ**

Opioidler ağrı tedavisinde temel ilaçlar olsa da istenmeyen yan etkileri nedeniyle kullanımı kısıtlanabilir. Gastrointestinal motilitenin geri dönüşünü yavaşlatması, solunum depresyonu ve bulantı kusma istenmeyen yan etkiler olarak sıralanabilir. Bu yan etkiler özellikle kolorektal cerrahi geçiren hastaların postoperatif döneminde zorlayıcı olabilir.. Morfinin 2mg/günden daha yüksek dozlarda kullanımının postoperatif ileus riskini artırdığı gösterilmiştir. (2)

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yollarını birden fazla noktada bloke etmek için kombinasyonlar mantıklı olabilir.  
(31)

## **KAYNAKÇA**

1. Ergenc M, Karpuz S, Ergenc M, Yegen C. Enhanced recovery after pancreatic surgery: A prospective randomized controlled clinical trial. *Journal of surgical oncology*. 2021;124(7):1070-6.
2. Barletta JF, Asgeirsson T, Senagore AJ. Influence of intravenous opioid dose on postoperative ileus. *The Annals of pharmacotherapy*. 2011;45(7-8):916-23.
3. Kranke P, Jokinen J, Pace NL, Schnabel A, Hollmann MW, Hahnenkamp K, et al. Continuous intravenous perioperative lidocaine infusion for postoperative pain and recovery. *The Cochrane database of systematic reviews*. 2015(7):Cd009642.
4. Raju DP, Hakendorf P, Costa M, Wattchow DA. Efficacy and safety of low-dose celecoxib in reducing post-operative paralytic ileus after major abdominal surgery. *ANZ journal of surgery*. 2015;85(12):946-50.
5. Shariat Moharari R, Motalebi M, Najafi A, Zamani MM, Imani F, Etezadi F, et al. Magnesium Can Decrease Postoperative Physiological Ileus and Postoperative Pain in Major non Laparoscopic Gastrointestinal Surgeries: A Randomized Controlled Trial. *Anesthesiology and pain medicine*. 2014;4(1):e12750.
6. Pöpping DM, Elia N, Van Aken HK, Marret E, Schug SA, Kranke P, et al. Impact of epidural analgesia on mortality and morbidity after surgery: systematic review and meta-analysis of randomized controlled trials. *Annals of surgery*. 2014;259(6):1056-67.
7. Apfel CC, Korttila K, Abdalla M, Kerger H, Turan A, Vedder I, et al. A factorial trial of six interventions for the prevention of postoperative nausea and vomiting. *The New England journal of medicine*. 2004;350(24):2441-51.
8. Lee LA, Caplan RA, Stephens LS, Posner KL, Terman GW, Voepel-Lewis T, et al. Postoperative opioid-induced respiratory depression: a closed claims analysis. *Anesthesiology*. 2015;122(3):659-65.
9. Tan M, Law LS, Gan TJ. Optimizing pain management to facilitate Enhanced Recovery After Surgery pathways. *Canadian journal of anaesthesia = Journal canadien d'anesthésie*. 2015;62(2):203-18.
10. Maund E, McDaid C, Rice S, Wright K, Jenkins B, Woolacott N. Paracetamol and selective and non-selective non-steroidal anti-inflammatory drugs for the reduction in morphine-related side-effects after major surgery: a systematic review. *British journal of anaesthesia*. 2011;106(3):292-7.
11. Vigneault L, Turgeon AF, Côté D, Lauzier F, Zarychanski R, Moore L, et al. Perioperative intravenous lidocaine infusion for postoperative pain control: a meta-analysis of randomized controlled trials. *Canadian journal of anaesthesia = Journal canadien d'anesthésie*. 2011;58(1):22-37.
12. Turan A, Karamanlioğlu B, Memiş D, Usar P, Pamukçu Z, Türe M. The analgesic effects of gabapentin after total abdominal hysterectomy. *Anesthesia and analgesia*. 2004;98(5):1370-3, table of contents.
13. Sen H, Sızlan A, Yanarates O, Emirkadi H, Ozkan S, Dagli G, et al. A comparison of gabapentin and ketamine in acute and chronic pain after hysterectomy. *Anesthesia and analgesia*. 2009;109(5):1645-50.

14. Fassoulaki A, Melemen A, Tsaroucha A, Paraskeva A. Perioperative pregabalin for acute and chronic pain after abdominal hysterectomy or myomectomy: a randomised controlled trial. *European journal of anaesthesiology*. 2012;29(11):531-6.
15. Chen JY, Ko TL, Wen YR, Wu SC, Chou YH, Yien HW, et al. Opioid-sparing effects of ketorolac and its correlation with the recovery of postoperative bowel function in colorectal surgery patients: a prospective randomized double-blinded study. *The Clinical journal of pain*. 2009;25(6):485-9.
16. Gorissen KJ, Benning D, Berghmans T, Snoeijs MG, Sosef MN, Hulsewe KW, et al. Risk of anastomotic leakage with non-steroidal anti-inflammatory drugs in colorectal surgery. *The British journal of surgery*. 2012;99(5):721-7.
17. Dale O, Somogyi AA, Li Y, Sullivan T, Shavit Y. Does intraoperative ketamine attenuate inflammatory reactivity following surgery? A systematic review and meta-analysis. *Anesthesia and analgesia*. 2012;115(4):934-43.
18. Waldron NH, Jones CA, Gan TJ, Allen TK, Habib AS. Impact of perioperative dexamethasone on postoperative analgesia and side-effects: systematic review and meta-analysis. *British journal of anaesthesia*. 2013;110(2):191-200.
19. Bolac CS, Wallace AH, Broadwater G, Havrilesky LJ, Habib AS. The impact of postoperative nausea and vomiting prophylaxis with dexamethasone on postoperative wound complications in patients undergoing laparotomy for endometrial cancer. *Anesthesia and analgesia*. 2013;116(5):1041-7.
20. Blaudszun G, Lysakowski C, Elia N, Tramèr MR. Effect of perioperative systemic  $\alpha_2$  agonists on postoperative morphine consumption and pain intensity: systematic review and meta-analysis of randomized controlled trials. *Anesthesiology*. 2012;116(6):1312-22.
21. Collard V, Mistraretti G, Taqi A, Asenjo JF, Feldman LS, Fried GM, et al. Intraoperative esmolol infusion in the absence of opioids spares postoperative fentanyl in patients undergoing ambulatory laparoscopic cholecystectomy. *Anesthesia and analgesia*. 2007;105(5):1255-62, table of contents.
22. Lassen K, Soop M, Nygren J, Cox PB, Hendry PO, Spies C, et al. Consensus review of optimal perioperative care in colorectal surgery: Enhanced Recovery After Surgery (ERAS) Group recommendations. *Archives of surgery (Chicago, Ill : 1960)*. 2009;144(10):961-9.
23. Block BM, Liu SS, Rowlingson AJ, Cowan AR, Cowan JA, Jr., Wu CL. Efficacy of postoperative epidural analgesia: a meta-analysis. *Jama*. 2003;290(18):2455-63.
24. Ahmed J, Lim M, Khan S, McNaught C, Macfie J. Predictors of length of stay in patients having elective colorectal surgery within an enhanced recovery protocol. *International journal of surgery (London, England)*. 2010;8(8):628-32.
25. Lee JH, Park JH, Kil HK, Choi SH, Noh SH, Koo BN. Efficacy of intrathecal morphine combined with intravenous analgesia versus thoracic epidural analgesia after gastrectomy. *Yonsei medical journal*. 2014;55(4):1106-14.
26. Virlos I, Clements D, Beynon J, Ratnalikar V, Khot U. Short-term outcomes with intrathecal versus epidural analgesia in laparoscopic colorectal surgery. *The British journal of surgery*. 2010;97(9):1401-6.
27. Brogi E, Kazan R, Cyr S, Giunta F, Hemmerling TM. Transversus abdominal plane block for postoperative analgesia: a systematic review and meta-analysis of randomized-controlled trials. *Canadian journal of anaesthesia = Journal canadien d'anesthésie*. 2016;63(10):1184-96.

28. Walter CJ, Maxwell-Armstrong C, Pinkney TD, Conaghan PJ, Bedford N, Gornall CB, et al. A randomised controlled trial of the efficacy of ultrasound-guided transversus abdominis plane (TAP) block in laparoscopic colorectal surgery. *Surgical endoscopy*. 2013;27(7):2366-72.
29. Rashid A, Gorissen KJ, Ris F, Gosselink MP, Shorthouse JR, Smith AD, et al. No benefit of ultrasound-guided transversus abdominis plane blocks over wound infiltration with local anaesthetic in elective laparoscopic colonic surgery: results of a double-blind randomized controlled trial. *Colorectal disease : the official journal of the Association of Coloproctology of Great Britain and Ireland*. 2017;19(7):681-9.
30. Oh ES, Li M, Fafowora TM, Inouye SK, Chen CH, Rosman LM, et al. Preoperative risk factors for postoperative delirium following hip fracture repair: a systematic review. *International journal of geriatric psychiatry*. 2015;30(9):900-10.
31. Joshi GP, Kehlet H. Postoperative pain management in the era of ERAS: An overview. *Best practice & research Clinical anaesthesiology*. 2019;33(3):259-67.