Epidemiological aspects of immediate postoperative pain in a tertiary hospital

Amanda Carolyne Caetano Alves[1], Paulo Adilson Hererra[1,2], Carlos Eduardo Coral de Oliveira[1,3]

DOI 10.5935/2595-0118.20230044-pt

Amanda Carolyne Caetano Alves – https://orcid.org/0000-0003-1705-7495;

Paulo Adilson Hererra – https://orcid.org/0000-0003-3495-1907;

Carlos Eduardo Coral de Oliveira – https://orcid.org/0000-0002-0502-2255.

1. Pontifícia Universidade Católica do Paraná, Curso de Medicina, Londrina, PR, Brasil.

2. Hospital Evangélico de Londrina, Departamento de Anestesiologia. Londrina, PR, Brasil.

3. Pontifícia Universidade Católica do Paraná, Departamento de Bases Terapeuticas e Práticas Clínicas Integradas I, II e III, Londrina, PR, Brasil.

ABSTRACT

BACKGROUND AND OBJECTIVES: Pain is a predominant symptom in the postoperative period and expected in any surgical service, being considered as a worldwide problem. Therefore, the aim of this study was to describe and analyze its epidemiological aspects, intensity, and predictors, for better management and predictability.

METHODS: This is a quantitative, retrospective and cross-sectional observational study, carried out in a tertiary hospital at Londrina-PR, in which medical records of post-surgical patients who responded to pain scales during their stay in the post-anesthetic recovery room were analyzed.

RESULTS: This study found that females are more likely to have postoperative pain and that younger patients are more susceptible, although not significantly. Mild pain predominated at rates greater than 60%, in which spinal blocks and gynecological/obstetric procedures were the most prevalent, in contrast to severe pain, which obtained higher percentages when general anestesia and orthopedic surgeries were performed. In addition, an equation for predicting severe pain in the immediate postoperative period was obtained, based on the chosen anesthesia and the patient's age.

CONCLUSION: Less intense postoperative pain was more prevalente than other intensities, with anesthesia and the type of surgery being possible predictive

factors, even if the harbinger of its severity was based on age and the anesthetic method.

Keywords: Acute pain, Epidemiology, Hospital anesthesia service, Medical records, Pain measurement.

REFERENCES

1. Williamson KJ, Stram ML. The epidemiology of inadequate control of acute pain. Pain. 2019;11:1005-7

2. Moreira L, Truppel YM, Kozovits FG, Santos VA, Atet V. Analgesia no pós-cirúrgico: panorama do controle da dor. Rev Dor. 2013;14(2):106-10.

3. Teixeira PAP, Amaral LT, Almeida LRM, Protásio CR, Oliveira Filho AM. Manejo da dor pós-operatória: uma revisao bibliográfica. Rev Med Saúde Brasília. 2014;3(1):85-9.

4. Lovich-Sapola J, Smith CE, Brandt CP. Postoperative pain control. Surg Clin North Am. 2015;95(2):301-18.

5. Chou R, Gordon DB, de Leon-Casasola OA, Rosenberg JM, Bickler S, Brennan T, Carter T, Cassidy CL, Chittenden EH, Degenhardt E, Griffith S, Manworren R, Mc- Carberg B, montgomery R, Murphy J, Perkal MF, Suresh S, Sluka K, Strassels S, Thirlby R, Viscusi E, Walco GA, Warner L, Weisman SJ, Wu CL. Management of postoperative pain: a clinical practice guideline from the American pain society, the American Society of Regional Anesthesia and Pain Medicine, and the American society of anesthesiologists' committee on regional anesthesia, executive committee, and administrative council. J Pain. 2016;17(2):131-57.

6. Vivian de Souza Franco L, Ferreira Barbosa Sugai R, Costa e Silva S, de Carvalho da Silva T, Bessa Veloso Silva R, Salvador de Souza Guimaraes R, et al. Dor pós-operatória em hospital universitário: perspectivas para promoçao de saúde. Rev Bras Prom da Saúde. 2017;30(4):1-8.

7. De Couceiro TCM, Valença MM, Lima LC, De Menezes TC, Raposo MCF. Prevalencia e influencia do sexo, idade e tipo de operaçao na dor pós-operatória. Rev Bras Anestesiol. 2009;59(3):314-20.

8. Pogatzki-Zahn EM, Segelcke D, Schug SA. Postoperative pain-from mechanisms to treatment. Pain Rep. 2017;2(2):e588.

9. Gan TJ, Epstein RS, Leone-Perkins ML, Salimi T, Iqbal SU, Whang PG. Practice patterns and treatment challenges in acute postoperative pain management: a survey of practicing physicians. Pain Ther. 2018;7(2):205-16.

10. El-Aqoul A, Obaid A, Yacoub E, Al-Najar M, Ramadan M, Darawad M. Factors associated with inadequate pain control among postoperative patients with cancer. Pain Manag Nurs. 2018;19(2):130-8.

11. Rawal N. Current issues in postoperative pain management. Eur J Anaesthesiol. 2016;33(3):160-71.

12. Yang MMH, Hartley RL, Leung AA, Ronksley PE, Jetté N, Casha S, Riva-Cambrin J. Preoperative predictors of poor acute postoperative pain control: a systematic review and meta-analysis. BMJ Open. 2019;9(4):e025091.

13. Sansone P, Pace MC, Passavanti MB, Pota V, Colella U, Aurilio C. Epidemiology and incidence of acute and chronic post-surgical pain. Ann Ital Chir. 2015;86(4):285-92.

14. Murray AA, Retief FW. Acute postoperative pain in 1 231 patients at a developing country referral hospital: Incidence and risk factors. South Afr J Anaesth Analg. 2016;22(1):26-31.

15. Eshete MT, Baeumler PI, Siebeck M, Tesfaye M, Haileamlak A, Michael GG, Ayele Y, Irnich D. Quality of postoperative pain management in Ethiopia: a prospective longitudinal study. PLoS One. 2019;14(5):e0215563.

16. Sommer M, de Rijke JM, van Kleef M, Kessels AGH, Peters ML, Geurts JW, Gramke HF, Marcus MA. The prevalence of postoperative pain in a sample of 1490 surgical inpatients. Eur J Anaesthesiol. 2008;25(4):267-74.

17. Georgiyants M, Khvysyuk O, Boguslavska N, Vysotska O, Pecherska A. Development of maphemapical model for the prediction of postoperative pain development among patients with limb injuries. Eastern. Eur J Enterpr Technol. 2017;2(4-86):4-9.

18. Abdullayev R, Uludag O, Celik B. Analgesia nociception index: assessment of acute postoperative pain. Br J Anesthesiol. 2019;69(4):396-402.

19. Palmeira CCA, Ashmawi HA, Posso IP. Sexo e percepçao da dor e analgesia. Rev Bras Anestesiol. 2011;61(6):814-28.

20. De Carvalho Borges N, Pereira LV, De Moura LA, Silva TC, Pedroso CF. Predictors for moderate to severe acute postoperative pain after cesarean section. Pain Res Manag. 2016;2016.

21. Werner MU, Mjöbo HN, Nielsen PR, Rudin A. Prediction of postoperative pain: a systematic review of predictive experimental pain studies. nesthesiology. 2010;112(6):1494-502.

22. Oliveira TR, Louzada LAL, Jorge JC. Spinal anesthesia: pros and cons. Rev Méd Minas Gerais. 2015;25(Supl 4):28-35.

23. Sallum AMC, Garcia DM, Sanches M. Dor aguda e crônica: revisao narrativa da literatura. Acta Paul Enferm. 2010;25(1):150-4.