Korean Journal of Anesthesiology

More to be done for the older patients

Bon-Nyeo Koo

Department of Anesthesiology and Pain Medicine, Severance Hospital, Yonsei University College of Medicine, Seoul, Korea

Editorial

Korean J Anesthesiol 2020;73(1):1-2
https://doi.org/10.4097/kja.19492
pISSN 2005-6419 • eISSN 2005-7563

Received: December 22, 2019
Accepted: December 22, 2019

Corresponding author:
Bon-Nyeo Koo, M.D., PhD.
Department of Anesthesiology and Pain Medicine, Severance Hospital, Yonsei University College of Medicine, 50, Yonsei-ro, Seodaemun-gu, Seoul 03722, Korea
Tel: +82-10-9982-4469
Fax: +82-2-312-7185
Email: koobn@yuhs.ac
ORCID: https://orcid.org/0000-0002-3189-1673

© The Korean Society of Anesthesiologists, 2020

This is an open-access article distributed under the terms of the Creative Commons Attribution Non-Commercial License (http://creativecommons.org/licenses/by-nc/4.0/), which permits unrestricted non-commercial use, distribution, and reproduction in any medium, provided the original work is properly cited.

Cognitive recovery after anesthesia and surgery is a concern for older adults, their families, and caregivers.

In the recent years, an increasing number of older adults have been undergoing anesthesia and surgery. In the western countries, approximately 37% of all surgical procedures were performed on patients more than 65 years of age in 2010, accounting for more than 19 million patients in the USA [1].

In this current issue of the *Korean Journal of Anesthesiology*, Choi et al. [2] reported that anesthetic methods were not associated with the incidence of postoperative delirium through a retrospective analysis of the Korean National Health Insurance claims database including 24,379 cases of total hip replacement arthroplasty. In their report, the incidences of 1.43% and 0.86% in the general and regional anesthesia groups, respectively, were substantially lower than those reported in other studies [3–5]. This discrepancy may be a result of the differences in methods of diagnosing delirium. Choi et al. identified postoperative delirium as the use of postoperative medication for delirium, such as haloperidol, chlorpromazine, olanzapine, and risperidone, as it was not possible to diagnose delirium using the Mini-Mental State Examination or Confusion Assessment Method. Therefore, the incidence of mild or hypoactive delirium may have been overlooked and, consequently, the incidence of postoperative delirium underestimated.

An early diagnosis of postoperative delirium (POD) is critical for a focused and effective treatment [6–11]. The latest clinical guidelines by European Society of Anaesthesiology recommend that patients should not leave the recovery room without being screened for POD [12]. If POD is detected, patients should not be discharged from the recovery room to the ward without having started an etiology- and symptom-based treatment [13]. This is for cases of delirium with a longer duration, and with delayed treatment, cognitive decline may be expected [14]. At the postoperative ward, POD should be monitored at least once per shift because of the fluctuating course of POD [12,15].

In this study by Choi et al. [2], diagnoses of hyperactive delirium were disproportionately represented in comparison with the hypoactive type. Hypoactive delirium is more common than hyperactive delirium [16–18], however, recent retrospective studies found notably lower incidence of hypoactive delirium because of the possible lack of routine screening for symptoms delirium [2,5,19]. For this reason, hypoactive delirium is detected late in time and has the worst prognosis.

The authors concluded that anesthetic methods are not associated with the incidence of postoperative delirium; therefore, depending on the patient's condition and the anesthesiologist's experience, both anesthetic methods should be considered in total hip replacement arthroplasty. However, many older patients and caregivers suffer from POD and its subsequent adverse events.

More rigorously designed multicenter randomized clinical trials and large-scale observational studies are required to determine which is the most appropriate anesthetic tech-

nique, and whether the current best practice recommendations, such as the preoperative cognitive function assessment and routine screening of POD, reduce the incidence of all forms of POD.

References

1. Number of all-listed procedures for discharges from short-stay hospitals, by procedure category and age [Internet]. Washington: Centers for Disease Control and Prevention. 2010 [cited 2019 Dec 22]. Available from https://www.cdc.gov/nchs/data/nhds/4procedures/2010pro4_numberprocedureage.pdf.
2. Choi EJ, Choi YJ, Lee SW, Choi YM, Ri HS, Park JY, et al. Effect of anesthetic method on incidence of delirium after total hip replacement arthroplasty in South Korea: a population-based study using national health insurance claims data. Korean J Anesthesiol 2019;Advance Access published on Aug 3, 2019. doi:10.4097/kja.19091.
3. Bin Abd Razak HR, Yung WY. Postoperative delirium in patients undergoing total joint arthroplasty: a systematic review. J Arthroplasty 2015; 30: 1414-7.
4. Scott JE, Mathias JL, Kneebone AC. Incidence of delirium following total joint replacement in older adults: a meta-analysis. Gen Hosp Psychiatry 2015; 37: 223-9.
5. Weinstein SM, Poultsides L, Baaklini LR, Mörwald EE, Cozowicz C, Saleh JN, et al. Postoperative delirium in total knee and hip arthroplasty patients: a study of perioperative modifiable risk factors. Br J Anaesth 2018; 120: 999-1008.
6. Bellelli G, Mazzola P, Morandi A, Bruni A, Carnevali L, Corsi M, et al. Duration of postoperative delirium is an independent predictor of 6-month mortality in older adults after hip fracture. J Am Geriatr Soc 2014; 62: 1335-40.
7. Heymann A, Radtke F, Schiemann A, Lütz A, MacGuill M, Wernecke KD, et al. Delayed treatment of delirium increases mortality rate in intensive care unit patients. J Int Med Res 2010; 38: 1584-95.
8. Pisani MA, Kong SY, Kasl SV, Murphy TE, Araujo KL, Van Ness PH, et al. Days of delirium are associated with 1-year mortality in an older intensive care unit population. Am J Respir Crit Care Med 2009; 180: 1092-7.
9. Saczynski JS, Marcantonio ER, Quach L, Fong TG, Gross A, Inouye SK, et al. Cognitive trajectories after postoperative delirium. N Engl J Med 2012; 367: 30-9.
10. Pandharipande PP, Girard TD, Jackson JC, Morandi A, Thompson JL, Pun BT, et al. Long-term cognitive impairment after critical illness. N Engl J Med 2013; 369: 1306-16.
11. Neufeld KJ, Leoutsakos JM, Oh E, Sieber FE, Chandra A, Ghosh A, et al. Long-term outcomes of older adults with and without delirium immediately after recovery from general anesthesia for surgery. Am J Geriatr Psychiatry 2015; 23: 1067-74.
12. Aldecoa C, Bettelli G, Bilotta F, Sanders RD, Audisio R, Borozdina A, et al. European Society of Anaesthesiology evidence-based and consensus-based guideline on postoperative delirium. Eur J Anaesthesiol 2017; 34: 192-214.
13. Neufeld KJ, Leoutsakos JM, Sieber FE, Wanamaker BL, Gibson Chambers JJ, Rao V, et al. Outcomes of early delirium diagnosis after general anesthesia in the elderly. Anesth Analg 2013; 117: 471-8.
14. Pandharipande PP, Girard TD, Jackson JC, Morandi A, Thompson JL, Pun BT, et al. Long-term cognitive impairment after critical illness. N Engl J Med 2013; 369: 1306-16.
15. Radtke FM, Franck M, Schust S, Boehme L, Pascher A, Bail HJ, et al. A comparison of three scores to screen for delirium on the surgical ward. World J Surg 2010; 34: 487-94.
16. Albrecht JS, Marcantonio ER, Roffey DM, Orwig D, Magaziner J, Terrin M, et al. Stability of postoperative delirium psychomotor subtypes in individuals with hip fracture. J Am Geriatr Soc 2015; 63: 970-6.
17. Meagher DJ, Leonard M, Donnelly S, Conroy M, Adamis D, Trzepacz PT. A longitudinal study of motor subtypes in delirium: frequency and stability during episodes. J Psychosom Res 2012; 72: 236-41.
18. Boettger S, Breitbart W. Phenomenology of the subtypes of delirium: phenomenological differences between hyperactive and hypoactive delirium. Palliat Support Care 2011; 9: 129-35.
19. van Velthuijsen EL, Zwakhalen SMG, Mulder WJ, Verhey FR, Kempen GI. Detection and management of hyperactive and hypoactive delirium in older patients during hospitalization: a retrospective cohort study evaluating daily practice. Int J Geriatr Psychiatry 2018; 33: 1521-9.

https://doi.org/10.4097/kja.19492