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Pharmacological Thromboprophylaxis after Major Abdominal Surgery: Should the Duration be Individualized?

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Dear Editor:

We read with great interest the recently published article by Colapkulu-Akgul et al. [1] entitled, "Perioperative short term prophylaxis against deep vein thrombosis after major abdominal cancer surgery: a retrospective cohort study," the authors assessed the safety of standard postoperative pharmacological prophylaxis for deep venous thrombosis (DVT) after major oncological resections, challenging the need for the traditional extended DVT prophylaxis. According to their results in 89 patients, the incidences of total and symptomatic DVT were 4.5% and 2.2%, respectively. Furthermore, they reported that the risk factors for postoperative DVT were coronary artery disease, mucinous adenocarcinoma, and vascular invasion of the tumor.

Although the results would merit further investigation through performance of prospective clinical studies, we would like to express our skepticism regarding some methodological aspects of the research. First, the authors did not mention any data regarding unplanned readmission of the operated patients for hospital-based care due to postoperative complications. One has to assume that out of 89 patients who had undergone major oncological operations, a small number would be expected to have returned to the hospital for the treatment of infectious (anastomotic leak, collections, other system infections) or wound complications. Certainly, if that is the case, some of the study patients would have had additional DVT pharmacological prophylaxis, at least while being admitted. We believe that this aspect would merit some clarification while interpreting the presented results.

Most importantly, we are concerned regarding the validity of the presented statistical analysis of the identified parameters for development of postoperative overall DVT. The authors concluded that coronary artery disease, mucinous adenocarcinoma or vascular invasion of the tumor were significantly associated with the development of postoperative DVT. However these conclusions were drawn comparing a group of four patients to a group of 85 patients. This fact renders somewhat endangered the attempt to statistically analyze a clinical observation.

Overall, although we agree that the reduction of duration of the traditional extended postoperative DVT prophylaxis after oncological operations could be possible through frequent clinical follow-up and implementation of a standardized protocol for duplex scanning intervals to detect early and asymptomatic DVTs [2,3]. In addition, the dosage of the anticoagulants should be titrated according to laboratory targets, in order to correctly assess their effectiveness and possible drug resistance (e.g., anti-Xa levels in cases of low molecular weight heparin components were used) [4]. Under this notion, without a doubt, the authors addressed an important aspect of perioperative care which does not restrict to surgical oncology, but spreads accross the spectrum of all specialities and would definitely merit further validation through prospective studies.

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CONFLICTS OF INTEREST

The authors have nothing to disclose.

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REFERENCES

1) Colapkulu-Akgul N, Ozemir IA, Beyazadam D, Alimoglu O. Perioperative short term prophylaxis against deep vein thrombosis after major abdominal cancer surgery: retrospective cohort study. Vasc Specialist Int 2021;37:45.
2) Kuroda S, Kikuchi S, Kakiuchi Y, Watanabe M, Kuwada K, Tsumura T, et al. Efficacy and safety of short-term (3 days) enoxaparin in preventing venous thromboembolism after gastric cancer surgery: a single-center, prospective cohort study. Int J Surg 2021;89:105946.
3) Sinnamon AJ, Tong JKC, Bailey EA, Brown C, Colbert L, Murray S, et al. Prospective implementation of a standardized screening protocol for deep venous thrombosis in abdominal surgical oncology patients. J Surg Oncol 2018;118:568-573.
4) Kramme K, Sarraf P, Munene G. Prophylactic enoxaparin adjusted by anti-factor Xa peak levels compared with recommended thromboprophylaxis and rates of clinically evident venous thromboembolism in surgical oncology patients. J Am Coll Surg 2020;230:314-321.