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Letter to the Editor on "Rivaroxaban Use for Thrombosis Prophylaxis is Associated With Early Periprosthetic Joint Infection"

To the Editor:

The concern expressed by Brimmo et al [1] regarding the increasing incidence of surgical site infection, as greater efficacy is achieved with deep vein thrombosis prophylaxis, is shared by all experts in the field.

Measures of association in a retrospective cohort, as used in their study, would be useful in the absence of data obtained with more robust experimental designs. Albeit with a different definition of infection than that used by the authors, the incidence of infection with rivaroxaban was studied extensively in the Regulation of Coagulation in Orthopedic surgery to prevent Deep vein thrombosis and pulmonary embolism (RECORD) randomized controlled trials [2-5]. No statistical differences in safety were found when comparing rivaroxaban to enoxaparin in 2509 patients undergoing hip arthroplasty [3] and 3148 patients undergoing knee arthroplasty [5]. To test for external validity, the Xarelto (R) in the prophylaxis of post-surgical venous thromboembolism after elective major orthopedic surgery of the hip or knee (XAMOS) trial was designed as a prospective cohort study [6] comparing rivaroxaban to various pharmacological agents in 15,000 patients, where no statistical differences with regard to infection were found.

Although we agree with the authors that their incidence of infection is higher than the benchmarks, we think the problem lies elsewhere, as the development of surgical site infection hinge on multiple risk factors both dependent on the patient and the procedure [7,8]. The authors approximate our argument when they quote other studies where benchmark infection rates have been achieved when using rivaroxaban for prophylaxis.

In conclusion, we believe that the findings reported by the authors must be reinterpreted considering the study limitations and the high-level evidence previously published regarding the use of rivaroxaban and surgical site infection.

Adolfo M. Llinás, MD[a,b,c,*]
Maria P. Bautista, MD, MSc[a]
Guillermo A. Bonilla, MD[a,b,c]
Meilyn A. Muskus, MD[a]
Daniel J. Monsalvo, MD[a]
[a]*Department of Orthopedics and Traumatology*
Hospital Universitario Fundación Santa Fe de Bogotá
Bogotá, Colombia

[b]*School of Medicine*
Universidad de Los Andes
Bogotá, Colombia

[c]*School of Medicine*
Universidad del Rosario
Bogotá, Colombia

[*]Reprint requests: Adolfo M. Llinás, MD, Department of Orthopedics and Traumatology, Hospital Universitario Fundación Santa Fe de Bogotá, Carrera 7 No. 117—15, Bogotá D.C. 110111186, Colombia.

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Response to Letter to the Editor on "Rivaroxaban Use for Thromboprophylaxis Is Associated With Early Periprosthetic Joint Infection"

To the Editor:

We would like to thank the authors for their input regarding our article entitled "Rivaroxaban Use for Thrombosis Prophylaxis Is Associated With Early Periprosthetic Joint Infection" [1].

As the authors noted, in the RECORD randomized controlled trials, no statistical differences in safety were reported [2-5]. However, the adverse events that were well described in the methodology were primarily limited to bleeding events. There was no description of postoperative wound infection, how this was defined, or for what time point this was measured. In the absence of these details, we assumed that these data were reported for the treatment period, which was 14 days postoperative. This is a diversion from the methodology used in our study, in which patients were followed postoperatively for 30 days. In summary, although we agree with

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