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Question regarding the article entitled “Comparison of Intravenous and Periarticular Administration of Corticosteroids in Total Knee Arthroplasty – A Prospective, Randomized Controlled Study”

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We recently have approached an interesting article entitled “Comparison of Intravenous and Periarticular Administration of Corticosteroids in Total Knee Arthroplasty – A Prospective, Randomized Controlled Study” by authors: Kazuhisa Hatayama, MD, PhD, Masanori Terauchi, MD, PhD, Atsufumi Oshima, MD, Hibiki Kakiage, MD, Keiko Ikeda, MD, and Hiroshi Higuchi, MD, PhD recently published in the honorable journal *Am J Bone Joint Surg Am*. 2021;103:319-25 d. In the research, they have prospectively analyzed the immediate postoperative outcomes of Total Knee Arthroplasty (TKA) patients into 2 groups; 10 mg dexamethasone IV bid versus 40-mg injection of triamcinolone acetonide as the cocktail mix of periarticular injection. They concluded that the periarticular injection of corticosteroids showed a better pain-control effect at 24 hours postoperatively than did intravenous administration, whereas the antiemetic effect was similar between treatments. They further added that the intravenous administration had a better anti-thromboembolic effect than periarticular injection, the incidence of deep venous thrombosis was low in both groups.

I understand and agree that the corticosteroids have anti-inflammatory and antiemetic effect during the perioperative period. However, I cannot agree that the corticosteroid is widely used during TKA especially as IV method. This practice may have a risk in increased rate of periprosthetic joint infection (PJI) not only as acute and subacute stage but also as delayed phase.

One important outcome for the study should be the rate of PJI between groups and/or comparison from the non-steroid use TKAs. The study does not show any information about the study follow up period after TKA nor the rate of PJI. Vast authors would be curious about the PJI outcome if the authors have made close follow up for the studied patients.

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Conflict of Interest: None Declared

Article Author Response

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Article Author(s) to Letter Writer(s)

As you indicated, our study follow-up period was short, minimum a month.

Now, all patients were followed for more than a year.

We have no case who had late infection in both groups.

We performed about 1200 arthroplasty including TKA and UKA from 2015 to 2020.

All patients were performed periarticular injection or intravenous administration of corticosteroid.

Of these, only one knee had postoperative PJI.

Several previous papers have shown that corticosteroid uses did not carry a risk in increased rate of PJI.

However, as we showed in this paper, periarticular injection of corticosteroid increased blood glucose level. We should examine blood glucose level after surgery, especially DM patients, not to expose a risk of PJI, if you do periarticular injection.

Thank you