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Dear Editor,

We are submitting our manuscript entitled "Effects of Vitamin C Supplementation on Histology of Callus Diameter and Osteoblast Number in Male Wistar Rats With Complete Femur Bone Fracture" for consideration for publication in Journal of Biomedicine and Translational Research. The short running title is "Vitamin C Effects on Bone Fracture Healing."

This study investigated the effects of vitamin C supplementation on bone fracture healing in a rat model. We hypothesized that vitamin C would positively influence healing by increasing callus diameter and osteoblast number. Our findings demonstrate that vitamin C supplementation, at both 200 mg/kg BW and 500 mg/kg BW, significantly increased callus diameter and osteoblast numbers in rats with complete femoral fractures compared to the control group. Importantly, we observed a dose-response relationship for callus diameter, with the 500 mg/kg BW dose showing a greater increase than the 200 mg/kg BW dose. While both doses increased osteoblast numbers, there was no statistically significant difference between the two vitamin C groups.

These results are significant because they provide further evidence supporting the beneficial role of vitamin C in bone fracture healing. The observed increase in callus diameter suggests improved bone formation and stability at the fracture site. The increased osteoblast numbers indicate a stimulation of the cells responsible for new bone formation, further contributing to the healing process. Our findings suggest that vitamin C could be a valuable adjunct therapy for promoting bone fracture healing.

We believe this manuscript will be of interest to the readership of Journal of Biomedicine and Translational Research. The study addresses an important clinical issue – optimizing fracture healing – and provides pre-clinical evidence supporting the potential therapeutic use of vitamin C.

We confirm that this manuscript has not been published elsewhere and is not under consideration by any other journal. We have no conflicts of interest to declare.

Thank you foryour time and consideration. We look forward to your response.

Sincerely,

On behalf of all authors

Syahrul Ramadan Rambe