FRACTURE HEALING IN HIV

A South African prospective cohort study

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HIV reduces bone mineral density, mineralisation and turnover, and thus may impair fracture healing.

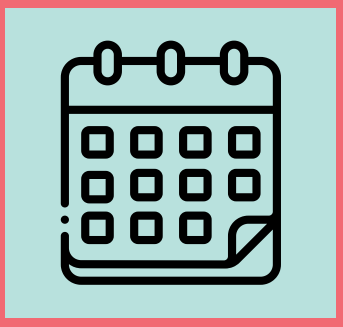
Effects of long-term immunosuppression from HIV infection on the fracture-repair process are not well understood.

What is the association between HIV infection and bone healing following a fracture?

METHODS

Including patients undergoing fracture surgery at two tertiary hospitals: Groote Schuur and Tygerberg in Cape Town, SA.

Patients included those who had tibial and femur shaft fractures, treated with intra-medullary (IM) nailing.



Patients from September 2017 to December 2018 were included, followed for minimum 12 months post-op.

RESULTS

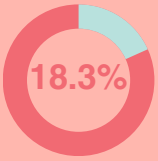
358 participants

71 participants were HIV +

395 IM nailings

Primary outcome result

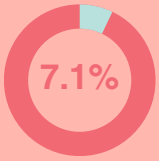
of HIV + patients developed delayed union at 6 months



of HIV - patients developed delayed union at 6 months

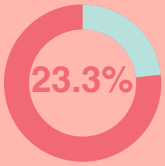
Secondary outcome result

of HIV + patients had developed a non-union at 9 months

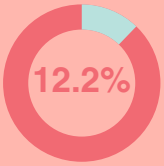


of HIV - patients had developed a non-union at 9 months

Positive Role of ART



A greater number of ART-naïve HIV + patients developed delayed union



compared to those HIV + patients who were taking ART

CONCLUSION

HIV is not shown to be associated with the risk of delayed bone healing following IM nailing of the lower limb. Fracture surgery in HIV + patients is thus safe and effective and HIV status should not influence the decision to operate.

Graham et al, JAIDS 2021