



Viral Detection at the Nonunion Site: Descriptive Preliminary Data from a Brazilian Multicentre Ambispective Cohort



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1. INTRODUCTION

- Viral nucleic acids can persist in human tissues, including bone; Parvovirus B19 DNA may remain detectable long after primary infection [1–3].
- PCR positivity at a nonunion site should not be assumed to indicate causal viral disease.
- The prevalence and clinical meaning of viral detection in established fracture nonunion remain poorly characterized.

2. OBJECTIVE

Describe viral detection in patients undergoing revision surgery for established nonunion and its distribution according to septic versus aseptic indication, fracture exposure, Weber-Cech and AO/OTA classifications, clinical scores, and laboratory markers.

3. MATERIALS & METHODS

- Ongoing Brazilian multicentre ambispective cohort; descriptive exploratory analysis of 22 patients with available viral testing.
- Viral panel for exanthematous viruses and arboviruses performed by quantitative PCR (qPCR).
- Primary outcome: viral detection at the nonunion site. Additional categories: outside-site only, simultaneous site + outside-site detection, and any viral positivity.
- Descriptive correlations: surgical indication, fracture exposure, affected bone, AO/OTA group, Weber-Cech classification, RUST, NURD, NUSS, and laboratory tests.
- No person-time denominator or healed-fracture control group: true incidence and causal risk cannot be estimated.

Interpretation principle: qPCR detection identifies viral nucleic acid; it does not by itself establish pathogenicity or causation.

4. KEY FINDINGS

