

A Ten-Year Analysis of Pediatric Osteomyelitis at a Ugandan Hospital: Clinical Presentation, Management, and Outcomes

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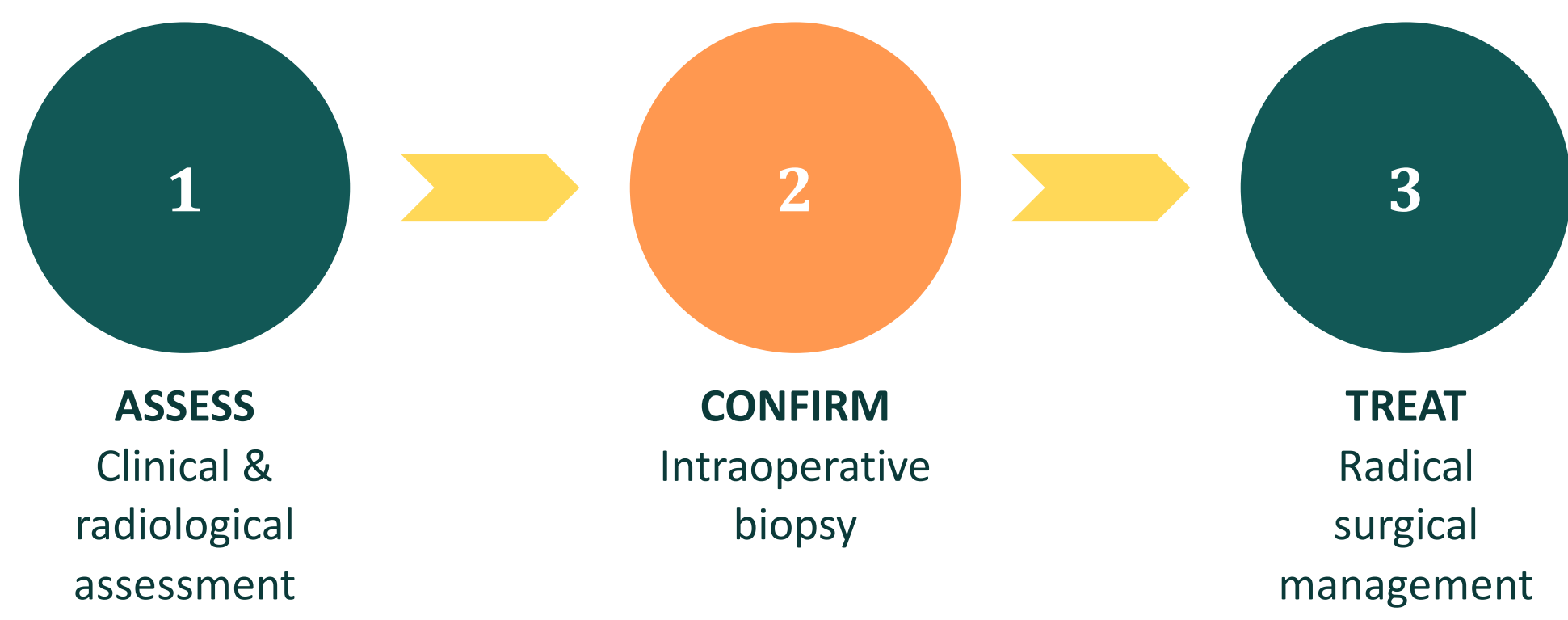
BACKGROUND & AIM

Pediatric chronic hematogenous osteomyelitis remains an important cause of morbidity in low-resource settings. This study describes the clinical presentation, disease distribution and surgical management of children treated at a high-volume pediatric hospital in Uganda over a 10-year period.

METHODS

- **Design & period.** Retrospective review of children consecutively managed from 2009 to 2018 (10 years).
- **Population.** Children aged 0–16 years diagnosed with hematogenous osteomyelitis.
- **Diagnosis.** Based on clinical and radiological features; intraoperative biopsy used as the main confirmatory tool.
- **Setting.** A single high-volume pediatric surgical facility in Uganda.

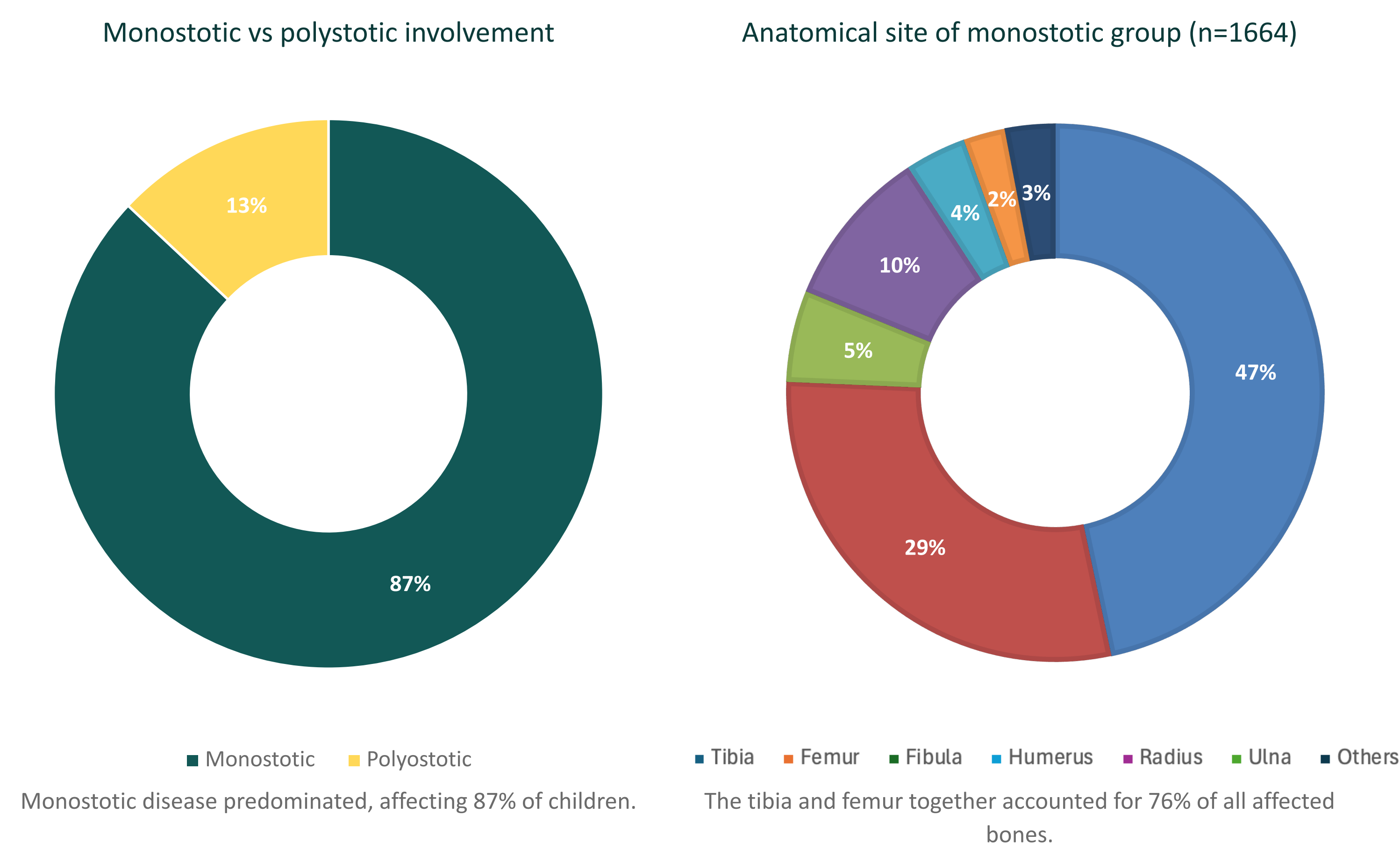
CLINICAL PATHWAY



STUDY POPULATION AT A GLANCE



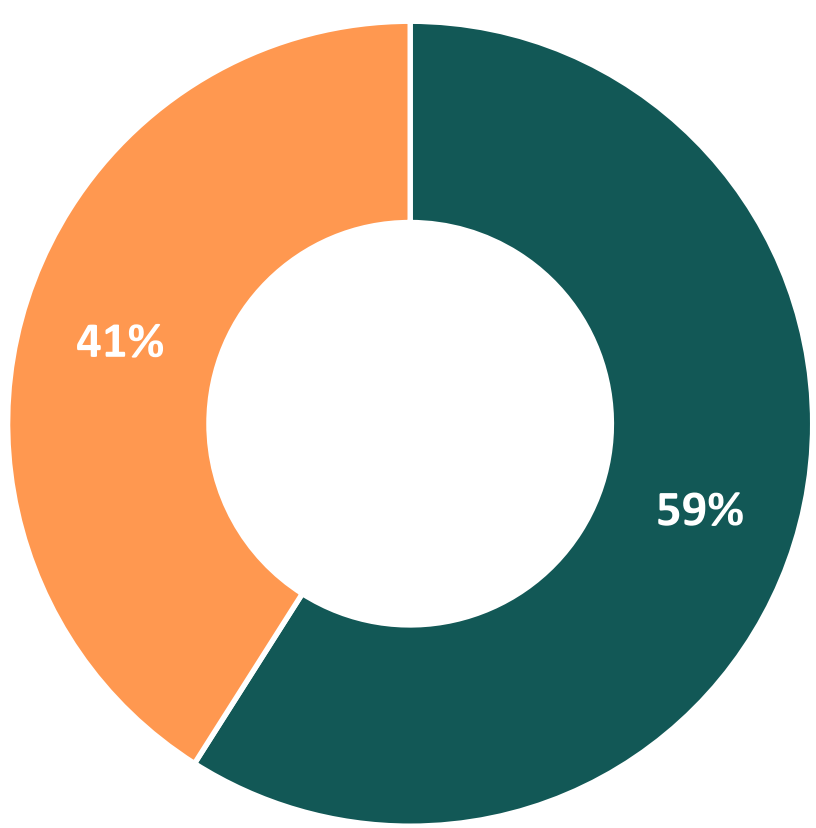
DISEASE DISTRIBUTION AT PRESENTATION



DISEASE SEVERITY

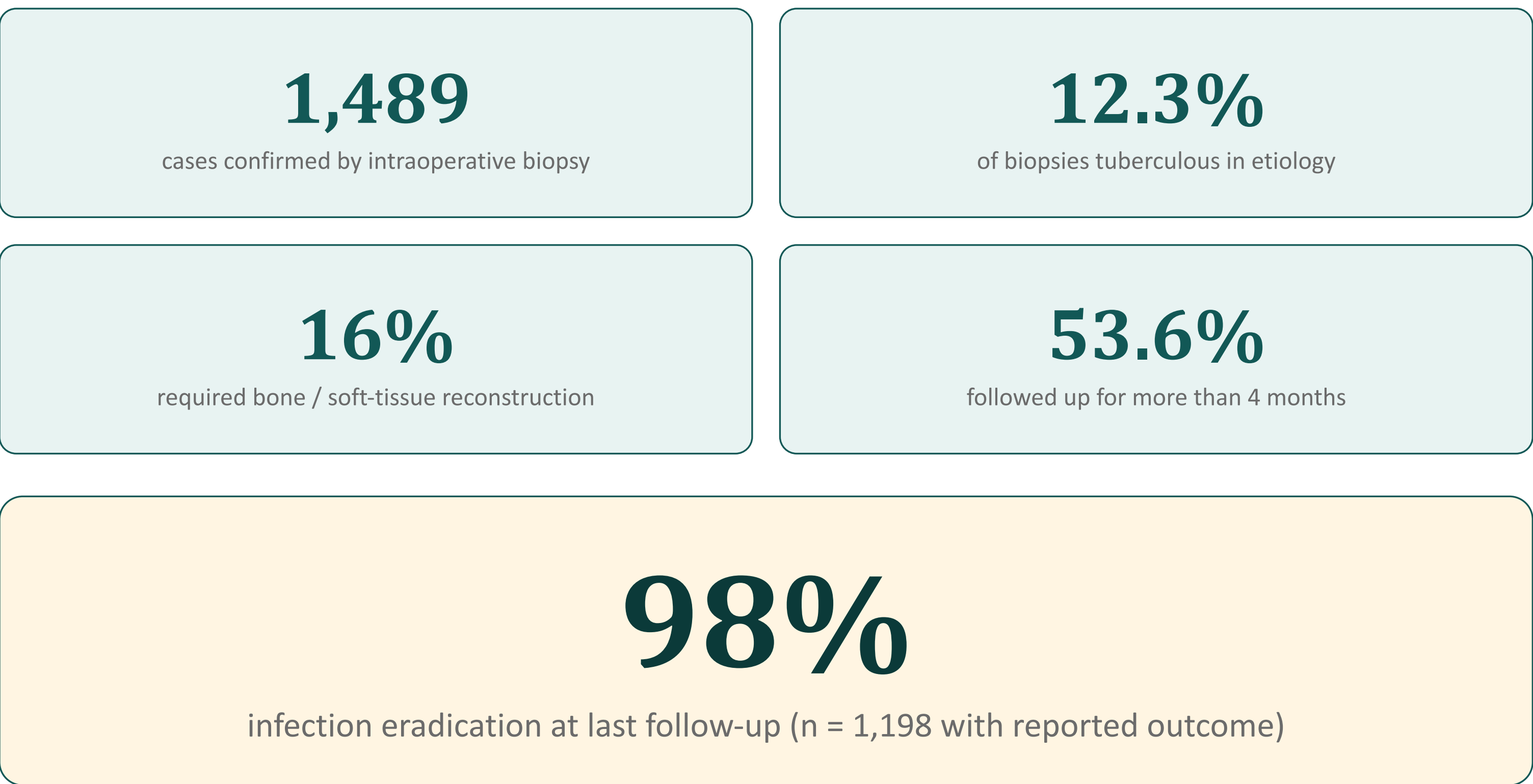
A total of 1,902 children were included. Surgery, guided by intraoperative biopsy, was the mainstay of treatment in every case.

Severity at presentation (Type 1 vs Type 2)



Type 1 (uncomplicated) disease accounted for 59% of cases; the remaining 41% presented with complicated (Type 2) disease.

TREATMENT & OUTCOME



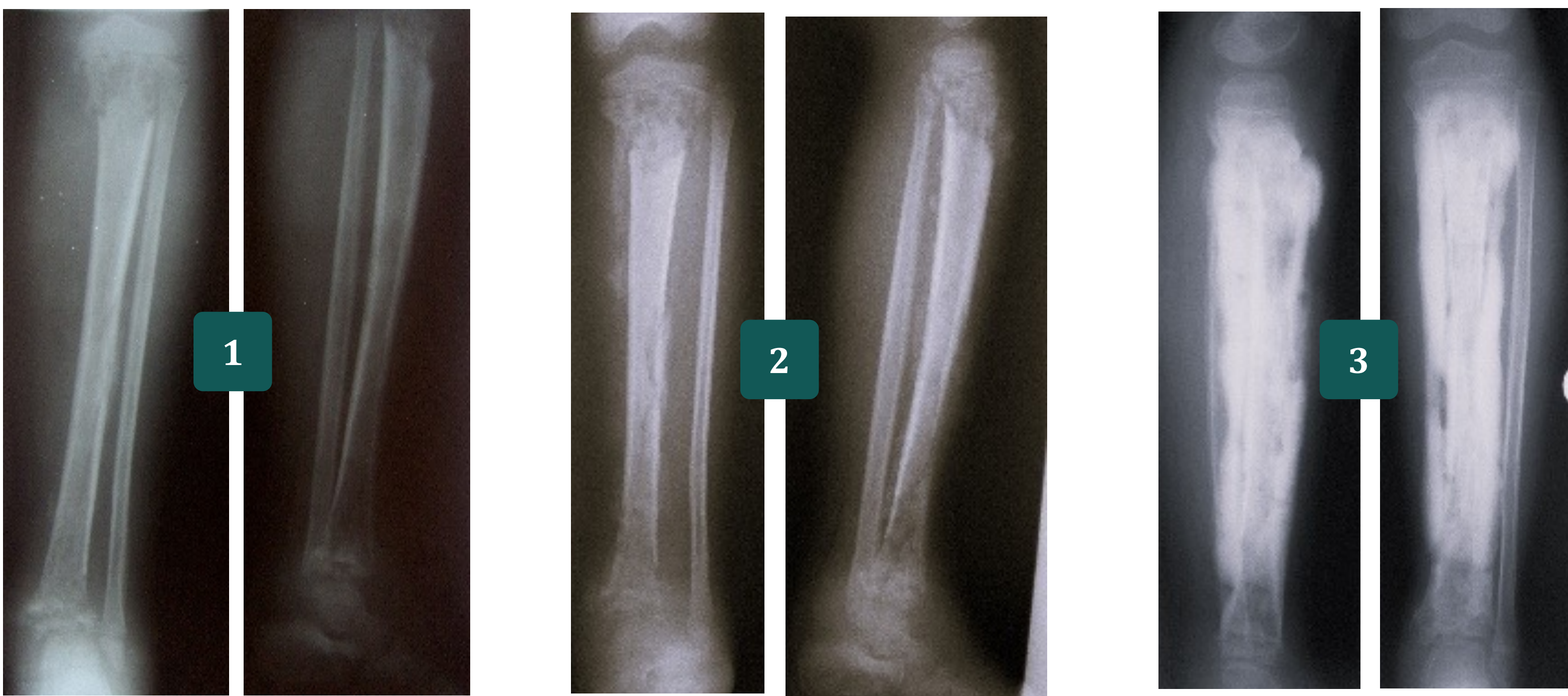
CONCLUSION

- Chronic paediatric osteomyelitis presents with a broad spectrum of disease severity and anatomical involvement.
- Radical surgical management was associated with infection eradication in 98% of patients with reported outcome.
- Complex cases requiring reconstruction highlight the need for multidisciplinary orthoplastic expertise.
- Dedicated specialist services may improve management of chronic paediatric osteomyelitis in resource-limited settings.

REFERENCE

Antonio L, Anria H, Fulvio F, Belthur MV. Paediatric musculoskeletal infections: a LMIC perspective. In: Pediatric Musculoskeletal Infections: Principles & Practice. Springer; 2022. p. 165–187.

CLINICAL CASE: TYPE 2 COMPLICATED OSTEOMYELITIS



Radiographic progression of a left tibia osteomyelitis in an 8 years old boy.

1. At presentation, 25 days from onset, features of pandiaphysitis with pathological fractures at both ends of the bone. Good soft tissues envelope was present. A wait and see plan was adopted and a cast applied, limiting the rush to surgery at this stage.
2. Fifty days later periosteal reaction, in form of streaks of new bone, was noted and immobilization continued. Their absence, after an observation period of 60-75 days, is predictive of lack of sarcophagus formation.
3. Three months later a strong involucrum formation was observed and sequestrectomy was safely performed in a solid bone.