

Incidence and Predictors of Fracture-Related Infection after Ankle Fracture Surgery: A Retrospective cohort study of 147 patients

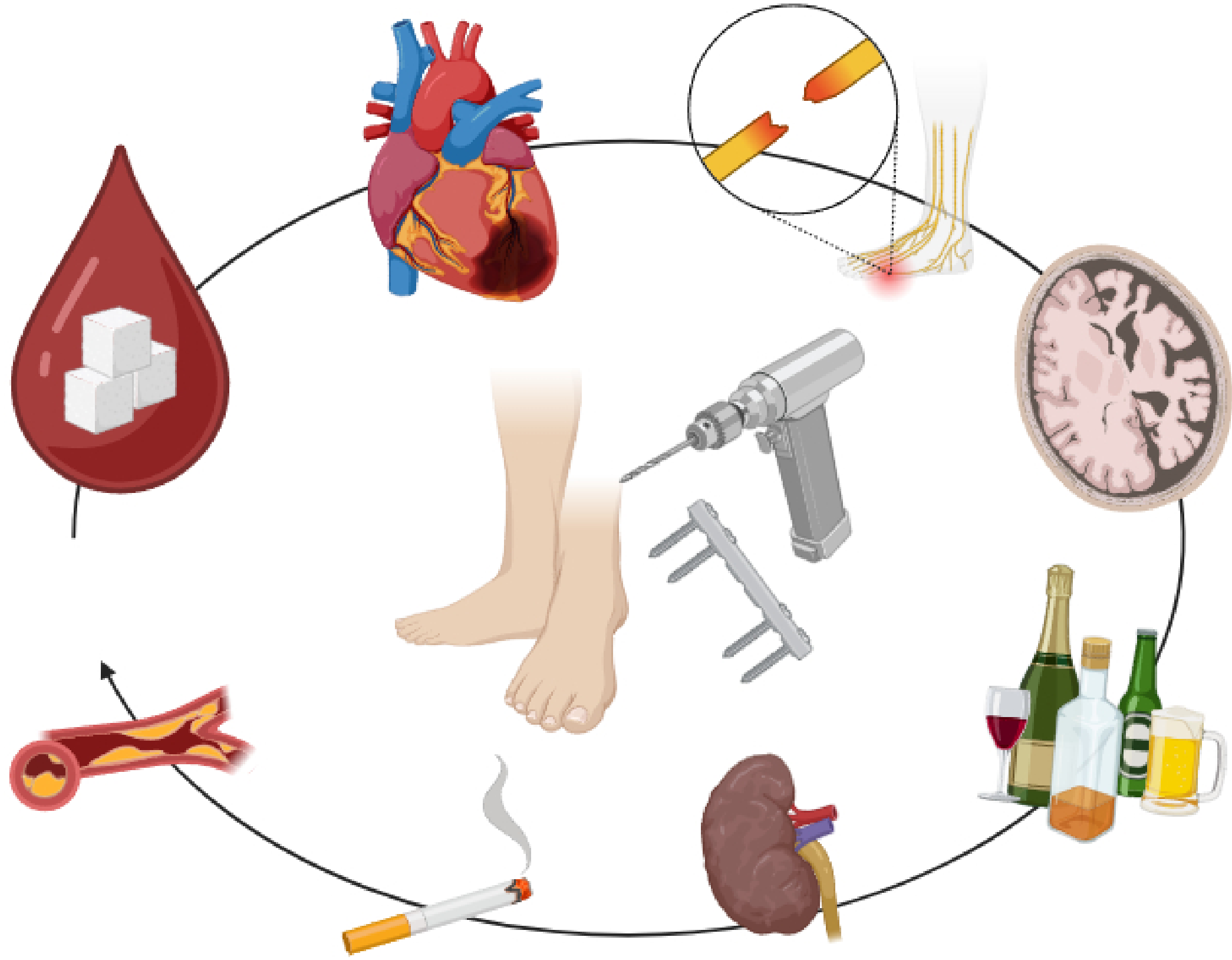
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BACKGROUND

Ankle fractures frequently require surgical intervention, but fracture-related infection (FRI) remains a severe complication, causing a risk for poor functional outcome, pain, and a risk for amputation. Treatment of FRI includes revision surgery, days in hospital, and systemic antibiotics. Identifying patients at high risk is crucial for optimizing perioperative care.

AIM

To determine the **prevalence of FRI** and investigate **prognostic risk factors** for FRI following surgical treatment of ankle fractures.

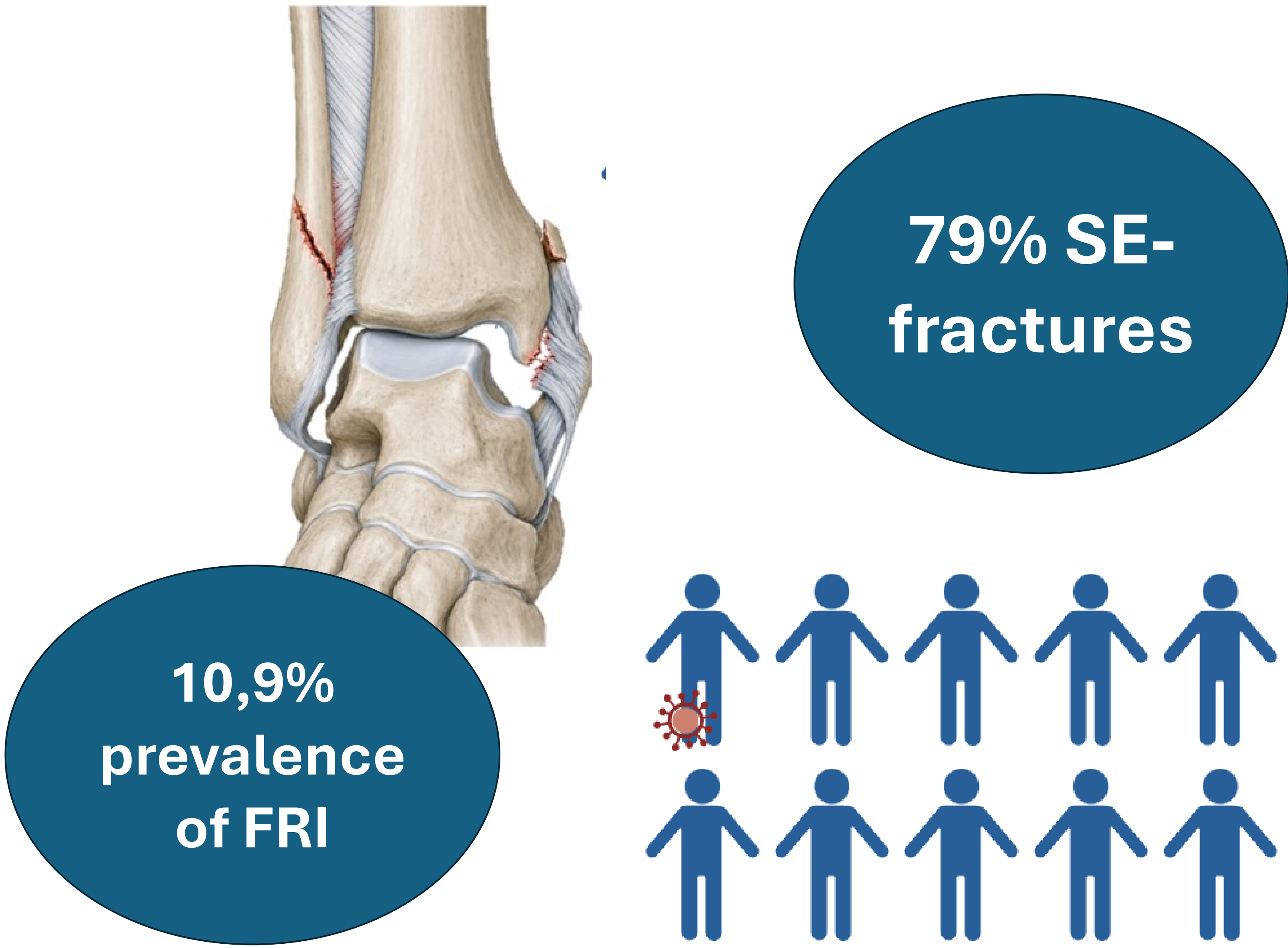
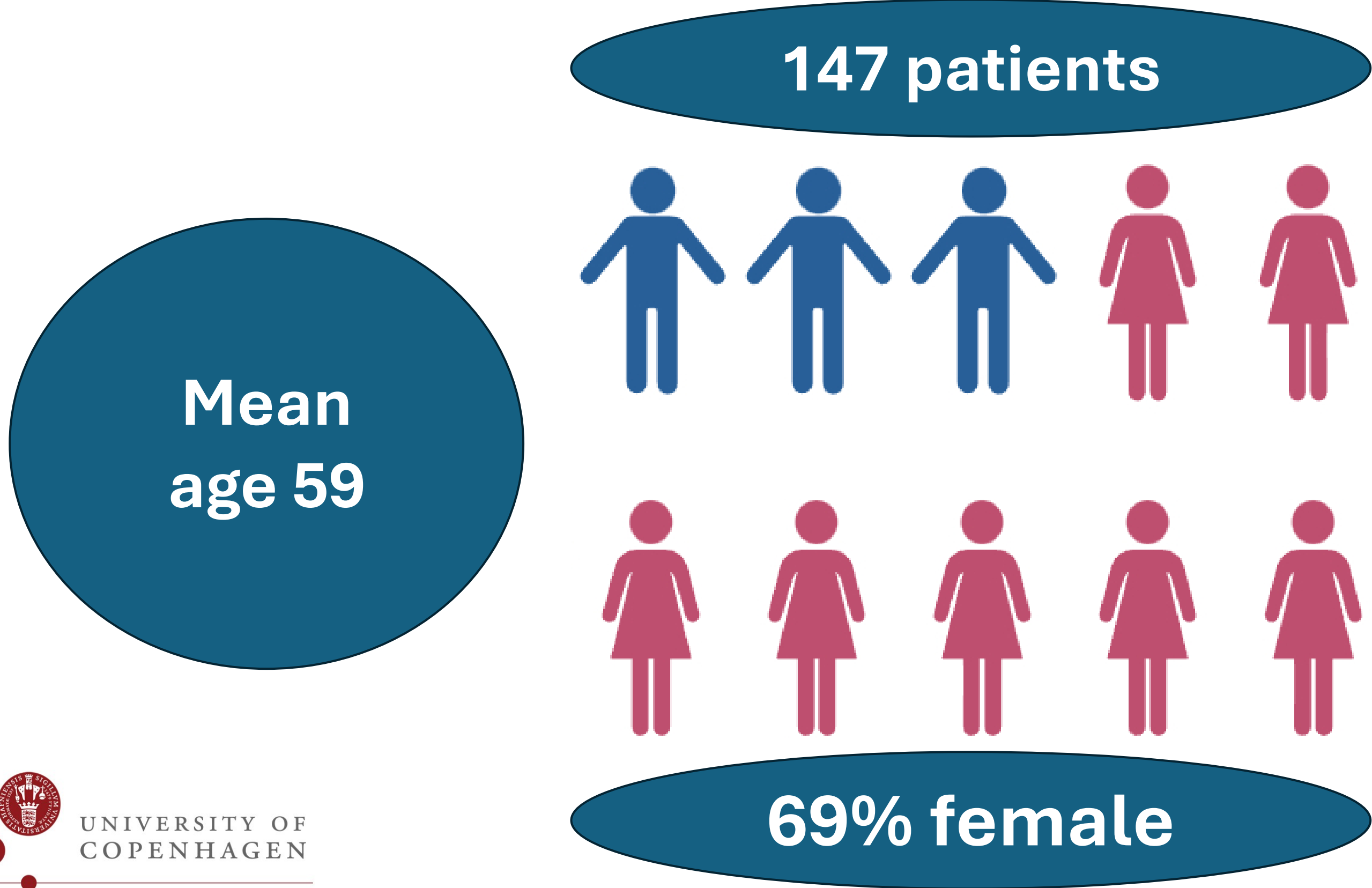


METHODS

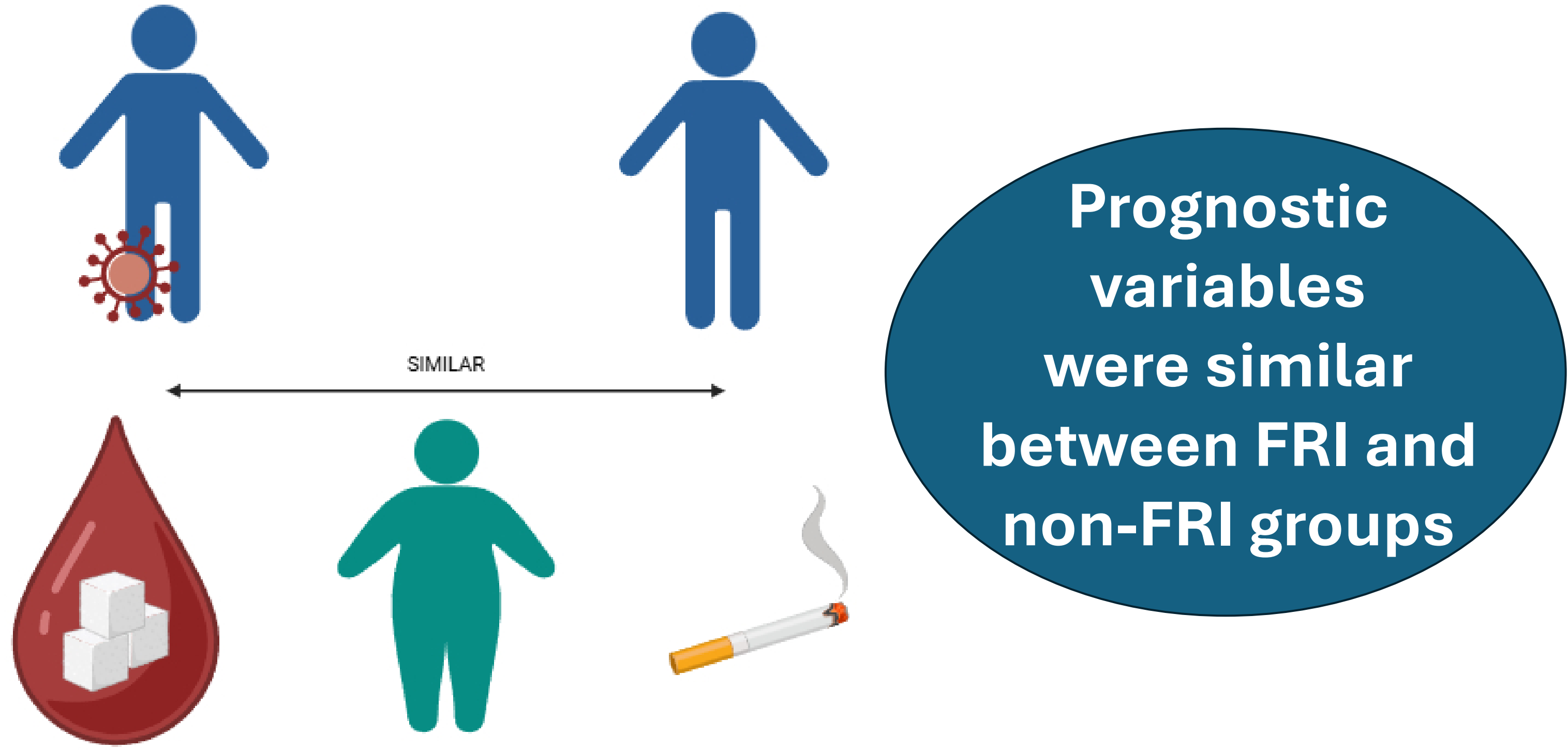
- At our level II trauma center we conducted:
- A retrospective study
 - January 2024-January 2025
 - Adult patients treated surgically for ankle fractures

- FRI cases were defined
- Confirmatory criteria
 - Suggestive criteria with
 - Positive bone sample at reoperation
 - Positive tissue sample at reoperation

RESULTS



Of this group, 15 (94%) presented with confirmatory signs, and 1 (6%) presented with suggestive signs. Deep tissue sampling was performed in 15 of the 16 FRI cases (94%), yielding 9 positive cultures (60% of sampled cases). Within the subgroup presenting exclusively with suggestive signs, 1 (9%) was culture-positive.



CONCLUSION

The FRI rate after ankle fracture surgery was 10.9%. No associations were found with traditional lifestyle risk factors. Instead, higher age and frequent use of fibular nails suggest a more fragile patient group at risk.

Further studies are needed to explore this topic.