5 Years of Lower Limb Osseointegrated Prostheses: Anticipating the “Who and What” of Poor Outcomes

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No Relevant Disclosures
Background

Osseointegrated implants anchor a prosthesis directly to residual bone.

Alternative to traditional socket prostheses in lower limb amputees.

- Sparse long-term data due to novelty and low case volume in US.
Methods

• Retrospective chart review
  100 patients, 102 lower limb implants
  October 2017 – February 2023

Univariate Analysis
  Chi-squared & Student’s t-test
  Odds ratios
## Demographics

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- **Gender**: 68 males : 34 females
- **Amputation level**: 62 AKA : 40 BKA
- **Age at implantation**: 47.3 years [20–70]
- **Length of follow-up**: 23.8 months [3.5–63.8]
- **Etiology of amputation**: 81 traumatic, 8 surgical complication, 4 oncologic, 9 other
Univariate Analysis
Conclusions

• Osseointegration is safe and effective

• Complications are influenced by:
  • Gender
  • Age
  • Anatomic location
  • Center experience

• Steep learning curve supports development of high-volume centers

• Intraoperative cultures may reduce the risk of infection

• HTN, obesity, and substance use do not impact outcomes
References


Thank you!

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