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Performance of a Biodegradable Temporary Matrix in Clinical Practice

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Study Demographics

- 126 cases were analyzed
- 70.2% of cases were males and 29.8% of cases were female
- 88.3% of cases were white patients, 5.8% of cases were black patients, and 5.8% of cases were patients of another race
- Average age at time of injury was 53.2 years old
- The most common application site was the lower leg
- The most common wound depth was subcutaneous fat

Results (Complications)

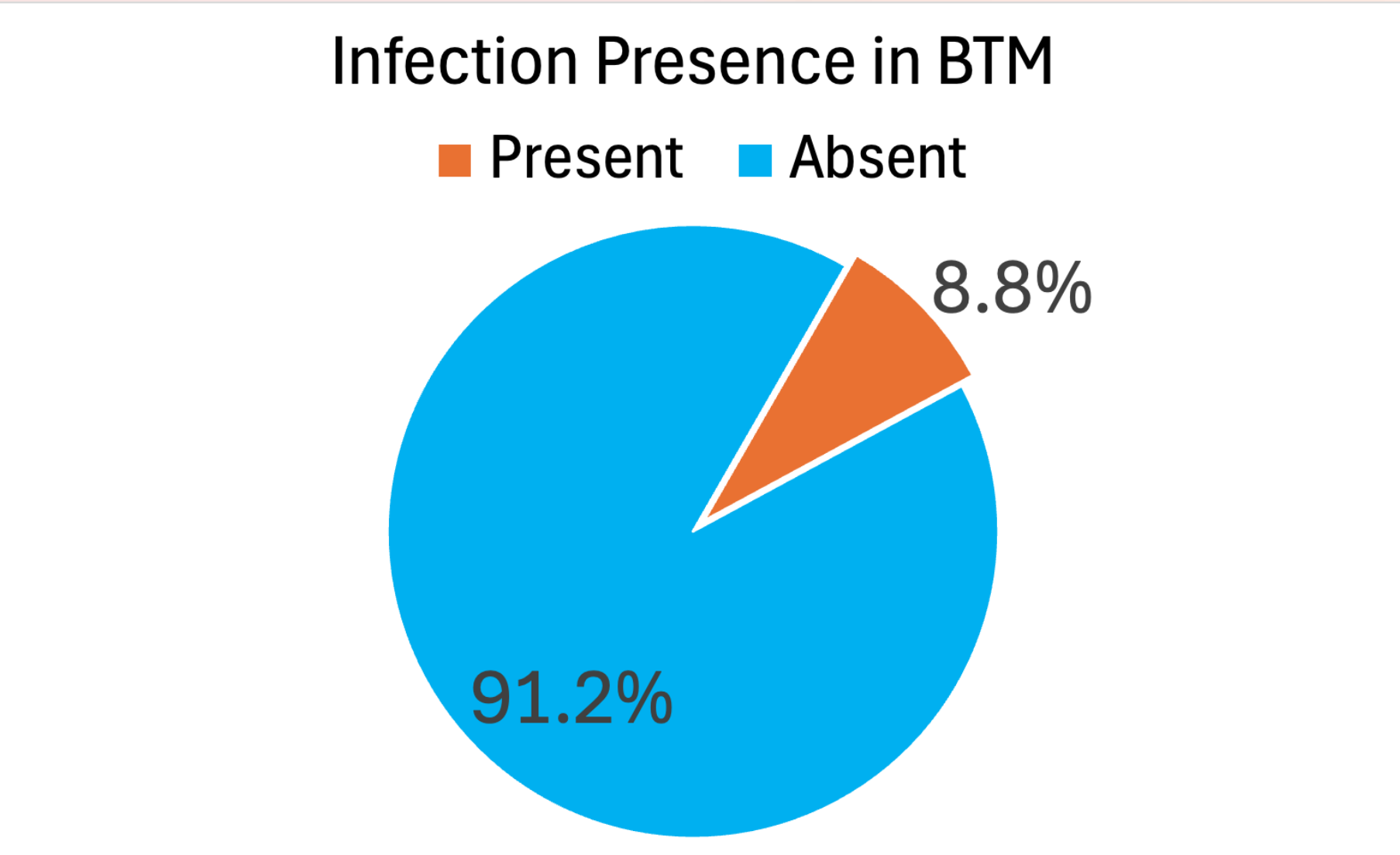


Figure 1. Presence of infection after initial BTM application. Infection present in 8.8% of cases and absent in 91.2% of cases.

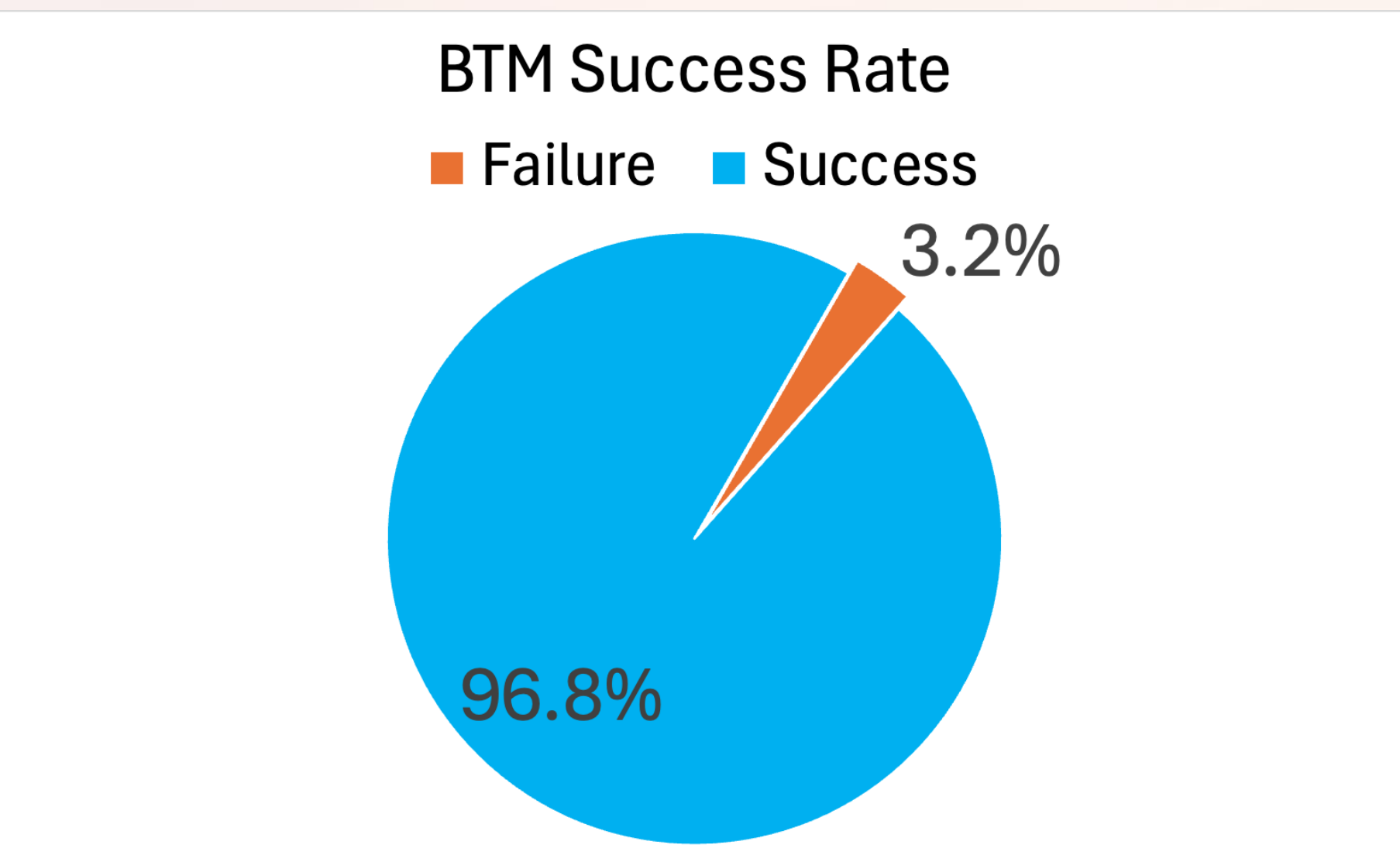


Figure 2. Success rate of initial BTM application 3.2% of cases failed and 96.8% of cases showed success.

Results (Scarring and Recovery)

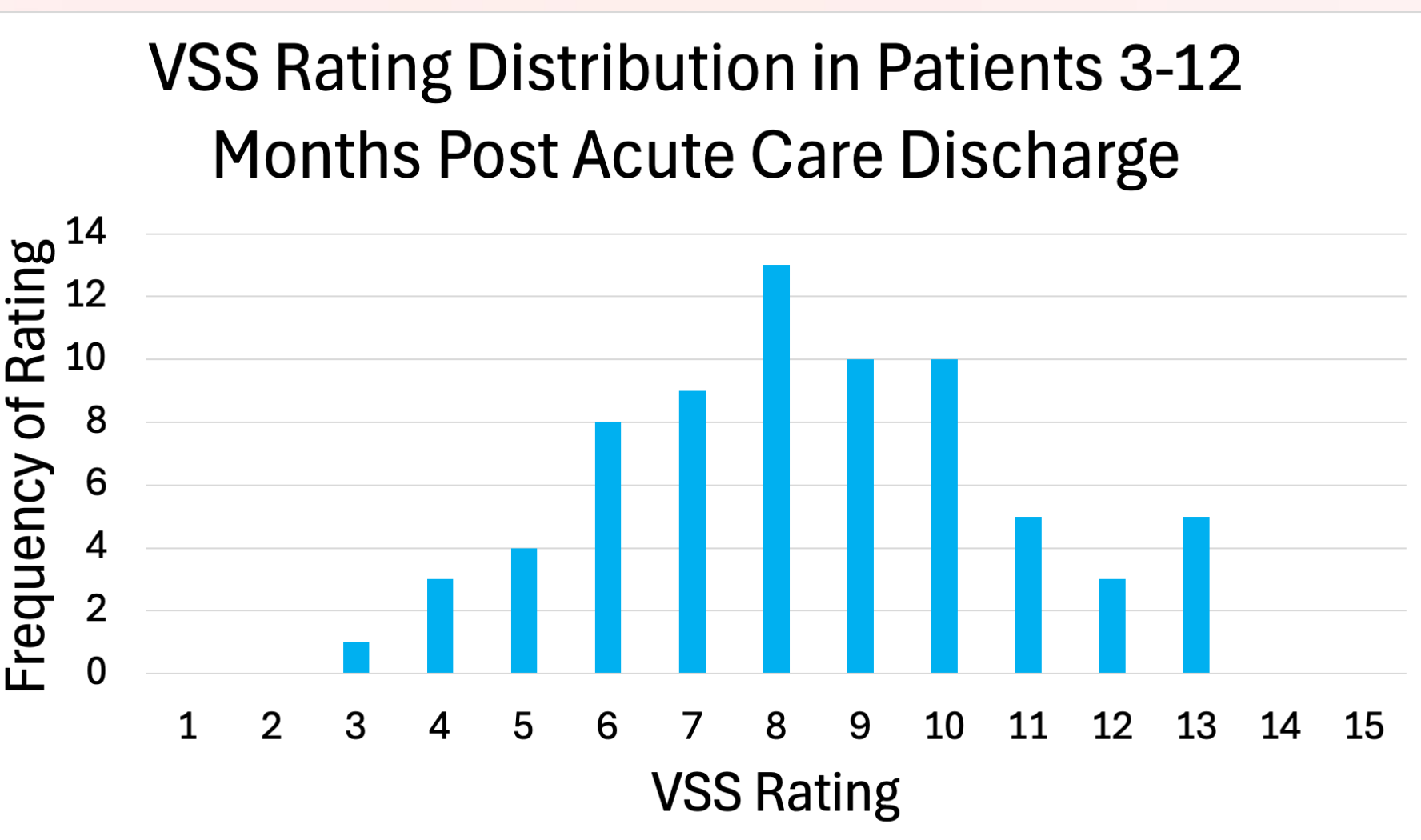


Figure 3. Distribution of VSS ratings based on VSS rubric. Mean = 8.39, SD = 2.41, n = 71.

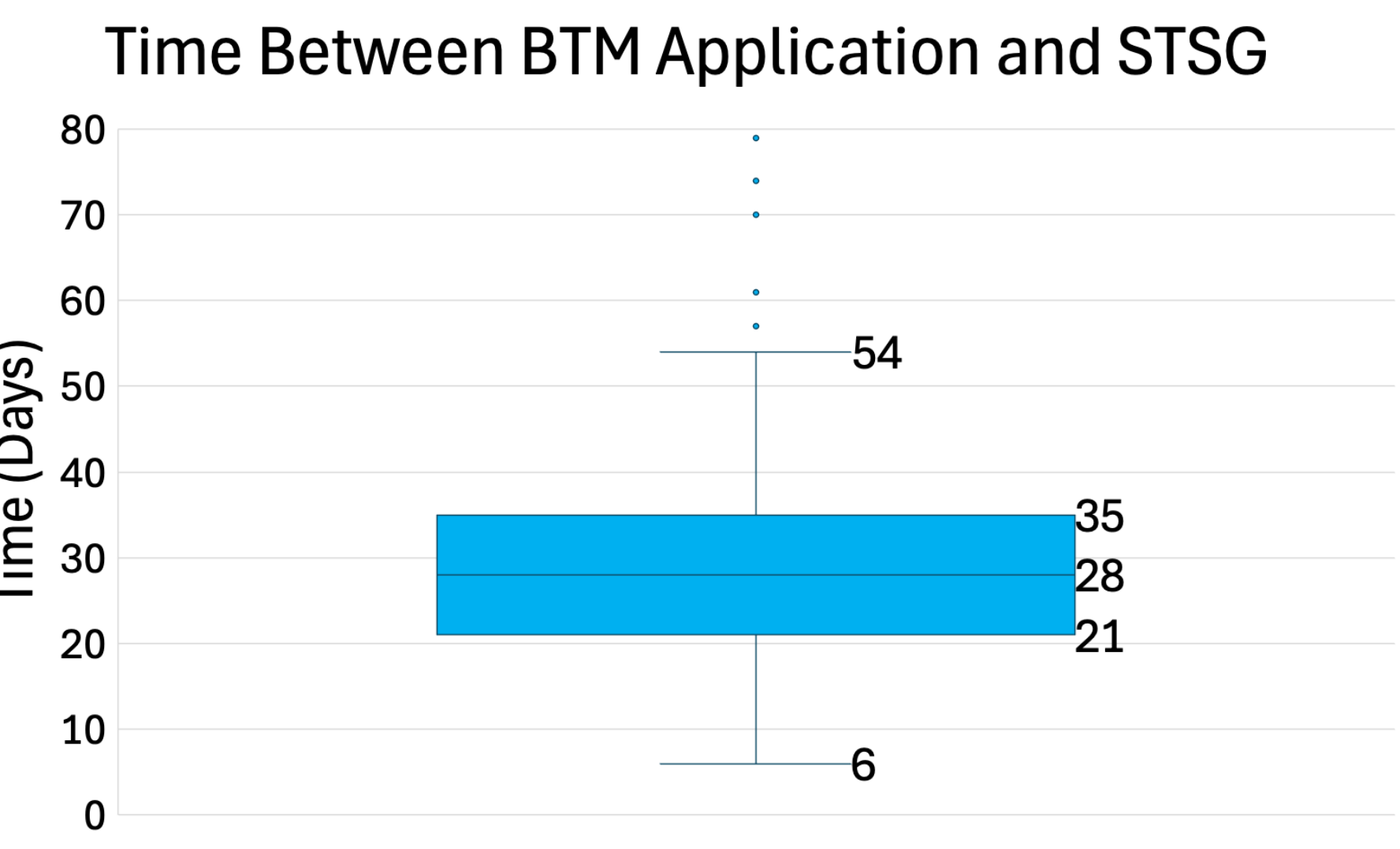


Figure 4. Elapsed time between BTM application and STSG. Mean = 29.40, SD = 12.82, n = 119.

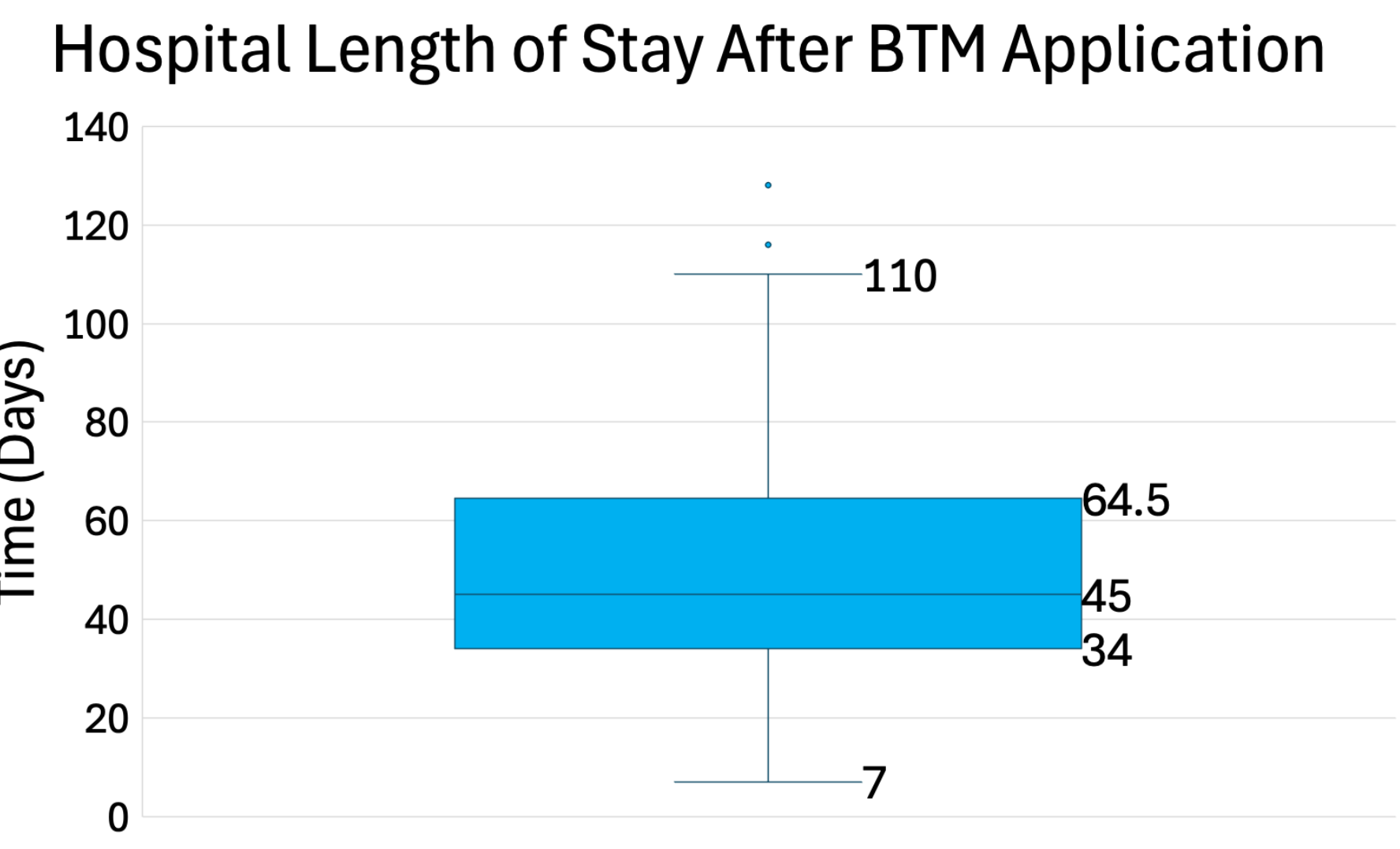


Figure 5. Elapsed time between BTM application and hospital discharge. Mean = 50.72, SD = 25.04, n = 126.

Conclusion

- This treatment had minimal complications after the initial BTM application
 - Low infection rates (nearly half as much as Integra-16.3%)
 - Low failure rates
- Relatively low percentage of scarring and scar shrinkage
- Average difference between BTM application and STSG was 29.40 days, while Integra is ready after 21 days.
- Average hospital length of stay after BTM application was 50.72 days.

Limitations

- No reference when determining scar shrinkage
- Notes missing
- Limited appointments post discharge
- Death or amputations prevent further evaluations
- Unable to determine costs

Discussion/Future Steps

- The two-stage BTM treatment is a reliable option for burns and complex wounds
- Examine effectiveness in different areas of body and varying wound depths
- Determine the affordability and cost-effectiveness of the treatment

References

