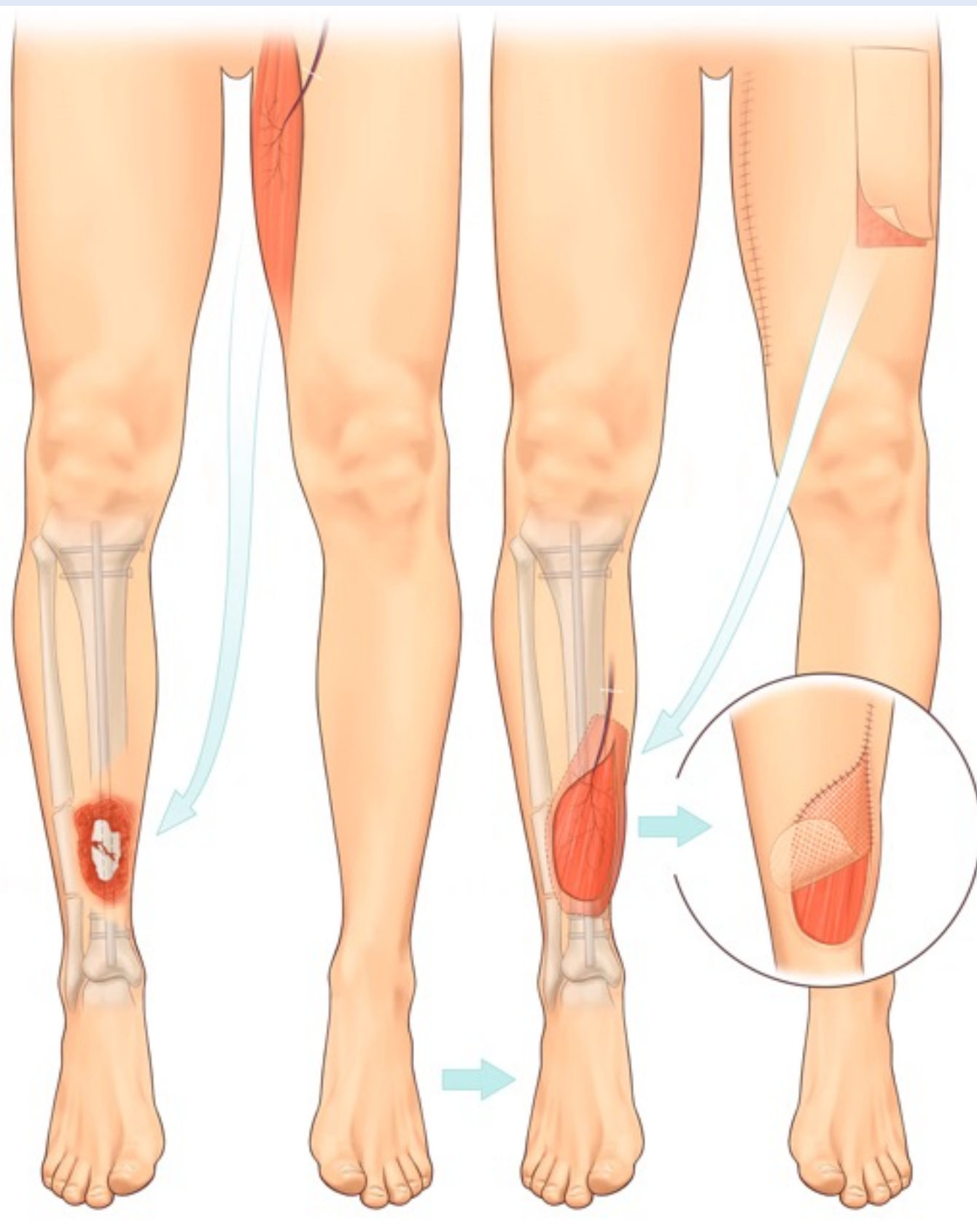


Effect Of Postoperative Anticoagulation Regimen On Lower Extremity Free Flap Outcomes

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Introduction

- Lower extremity free flap reconstruction cases have a higher failure rate than those in other anatomic regions.
- The use of anticoagulation in the perioperative period may decrease the risk of some of the reasons for flap failure, side-effects may include a greater risk of complications.
- A standardized protocol for anticoagulation in lower extremity free flap that minimizes risks and maximizes benefits would improve patient outcomes.
- We evaluated complication rates associated with various anticoagulation protocols to determine whether one is superior to another.



<https://www.bapras.org.uk/public/patient-information/reconstructive-surgery>

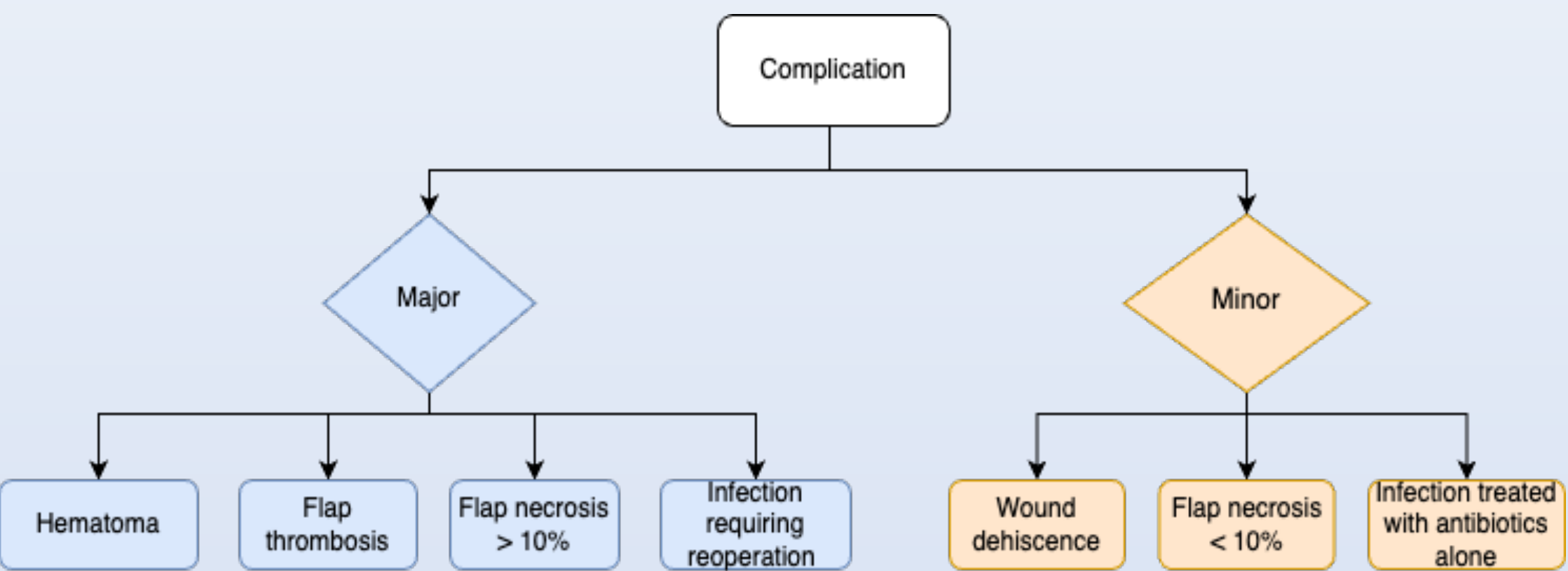
Methods

Adults with acute traumatic lower extremity injury treated with lower extremity free tissue transfer during index hospitalizations from 2016-2021 were included in a retrospective chart review.

Patients were divided based on postoperative anticoagulation regimen:

- Aspirin
- Heparin
- Heparin + Aspirin
- DVT Prophylaxis Alone

Complications were divided into major and minor categories.



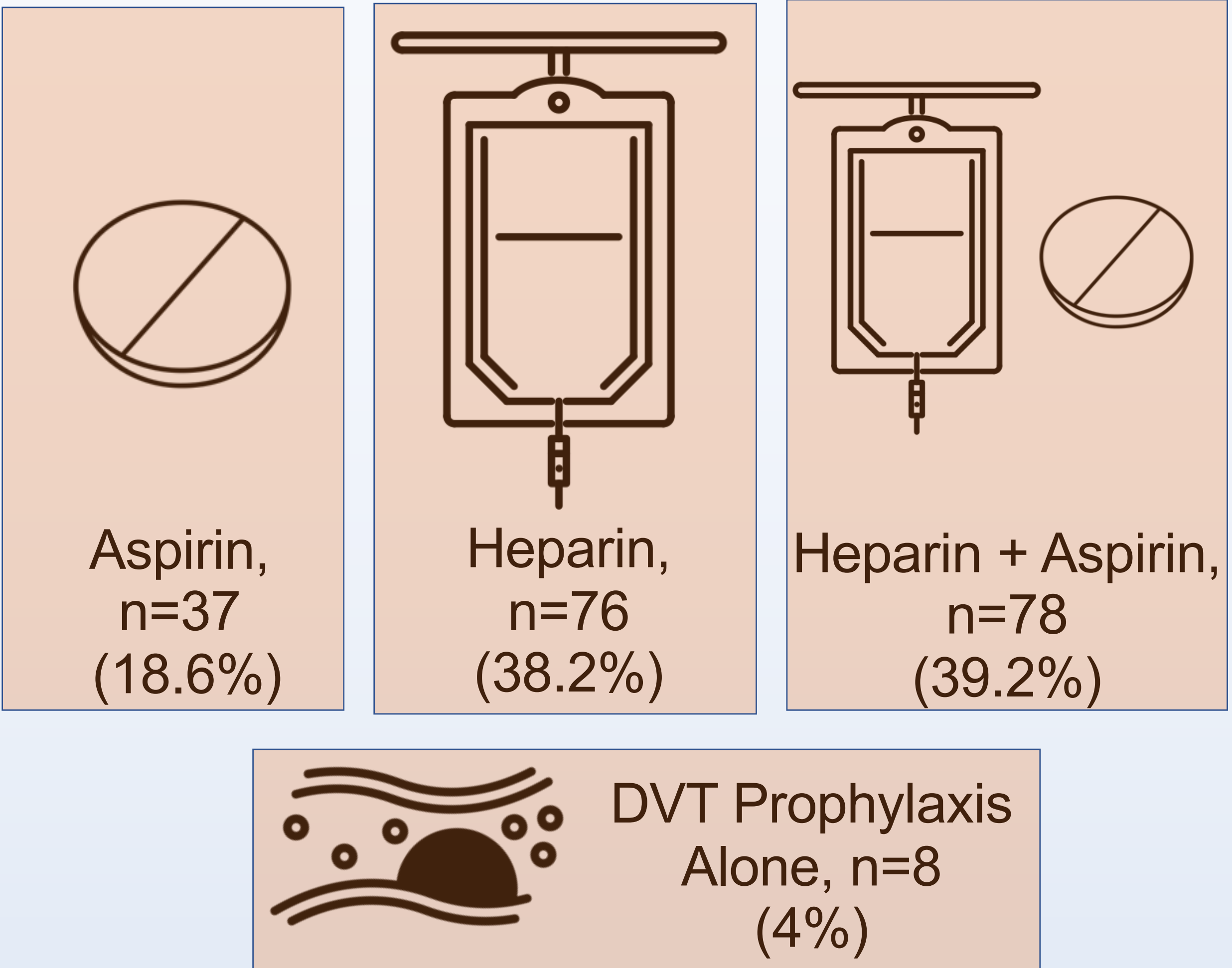
Univariate analysis between the anticoagulation groups were performed to compare complication rates between each group

ANOVA and chi-squared tests with significance of $P < 0.5$ were used.

The same significance threshold was used for multivariable analysis with a multivariate generalized linear model to predict any major complications.

Results

199 patients meet inclusion criteria.



Demographics were similar between the two groups.

Rates of developing any major complications were significantly negatively correlated with the aspirin only group ($p=0.001$) and the heparin drip only group ($p=0.031$). No differences in rates of wound dehiscence, infection treated with antibiotics alone, partial flap necrosis $< 10\%$, complete flap necrosis, flap hematoma, flap take-back/re-operation ($p=0.286$), anastomotic thrombosis, donor site hematoma, and flap elevation due to infection were found.

Conclusions

In patients with lower extremity free tissue transfer after acute trauma, postoperative use of aspirin only or heparin only results in fewer complications than aspirin + heparin or DVT prophylaxis alone. .

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