

Timing of Microvascular Flap Compromise in Autologous Breast Reconstruction: Implications for Hospital Length of Stay

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Purpose

- **Flap loss** = dreaded complication in autologous breast reconstruction
- Prompt identification & rapid return to OR → higher rates of **flap salvage**
- High cost of hospital admission → strategies to **expedite discharge** following autologous breast reconstruction
- Our **ERAS protocol** for autologous breast reconstruction → anticipated **discharge POD 3**

Goal: Characterize timing of microvascular compromise to guide patient counseling & minimize flap loss in the face of increasingly early hospital discharge

Methods

Retrospective review at NYU Langone Health (2017-2021)

338 patients (540 breasts) who underwent abdominally-based autologous breast reconstruction

Incidence of arterial/venous compromise, time to compromise, return to OR, flap loss, & length of stay (LOS) reviewed

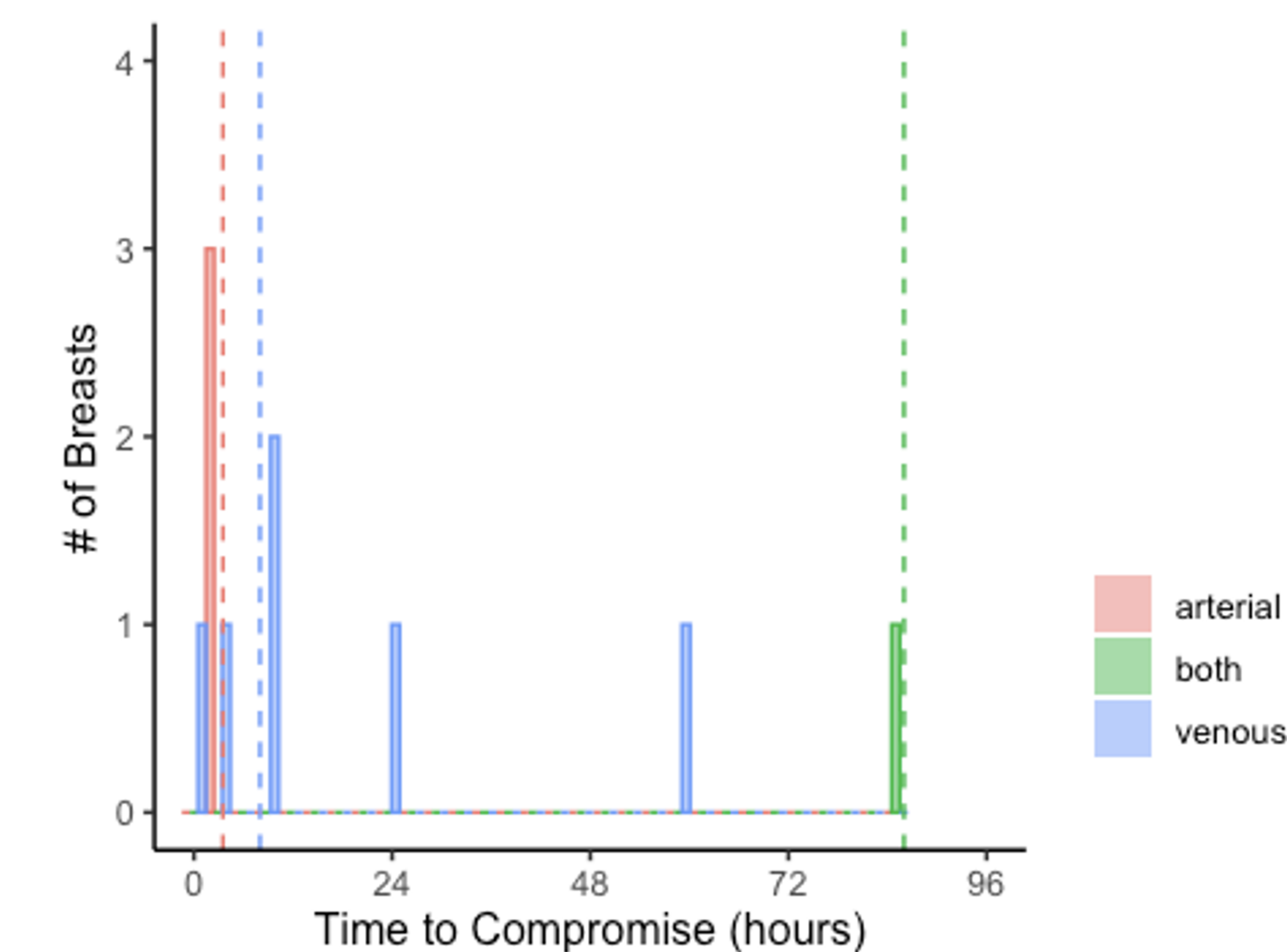
Results

10 (1.9%) cases of microvascular compromise

- 3 (0.6%) arterial compromise
- 6 (1.1%) venous compromise
- 1 (0.2%) combined arterial & venous compromise

9 patients (2.7%) experienced microvascular compromise requiring return to OR

Timing of Microvascular Flap Compromise



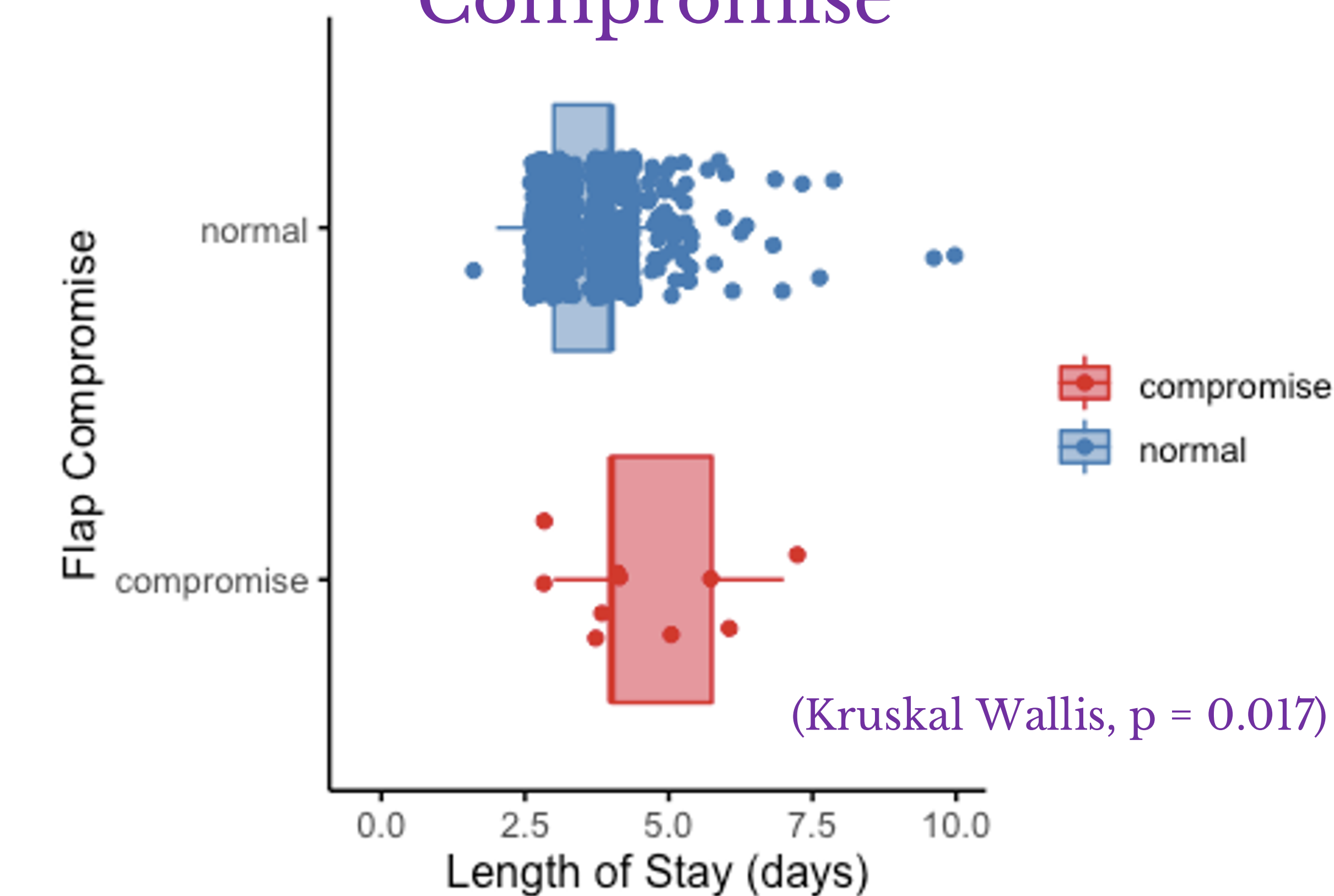
Time to flap compromise: 1-86 hours

- 80% occurred within 24 hours

2 (0.4%) cases of **total flap loss** at 60 and 86 hours postoperatively

- 1 reconstructed with latissimus flap
- 1 reconstructed with breast implant

Length of Stay by Flap Compromise



Conclusion

- **Low incidence** of microvascular compromise (1.9%)
- All but 2 cases of microvascular compromise occurred **within 24 hours** postoperatively
- For most patients, discharge prior to POD3 is **safe** & could **reduce LOS**