

Donor Site Scarring Following Split Thickness Skin Graft Procedure

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Donor Site Scarring Following Split Thickness Skin Graft Procedure

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Introduction and Objective

Split thickness skin grafting (STSG) is the standard treatment for burn wounds without healing potential - deep 2nd and 3rd degree burns, and other large full thickness skin wounds.

To harvest a split thickness skin graft, a new lesion must be created by shaving a sheet of healthy tissue off the patient.

While much time has recently been spent on the recovery process of burn wounds, little attention has been paid to the long-term outcomes of donor sites.

Objective: To identify factors that can lead to higher chances of donor site scarring by evaluating any association between patient conditions to help tailor patient care and clinical decision making related to the donor site in the future.

Methods

Data Collection

This is a retrospective chart review study. All data were collected through EPIC and entered into REDCap

Patient Population

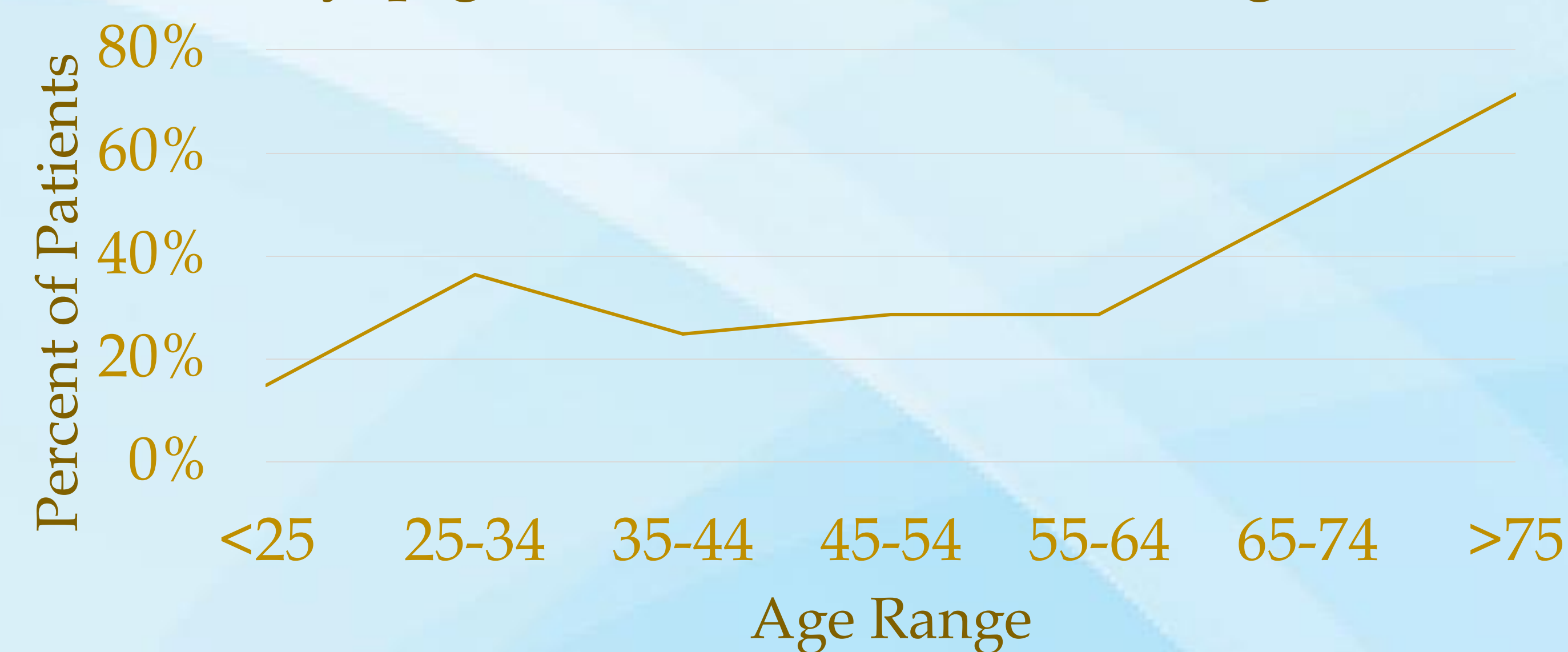
100 patients who required a STSG, treated at LVHN Burn Center between January 2015 and December 2022

Factors

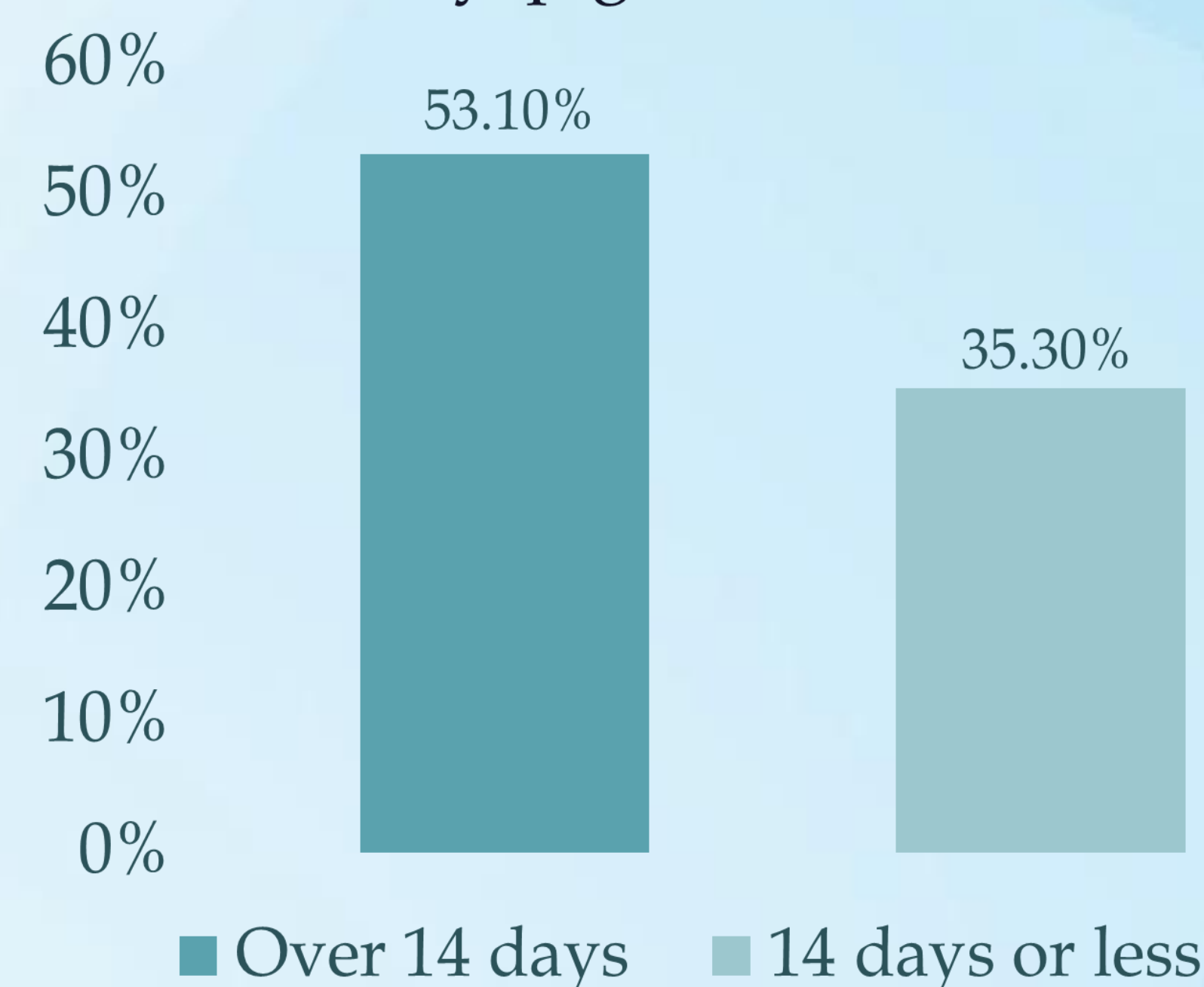
Demographics, comorbidities, donor site thickness and location, follow-up notes and photographs

Results

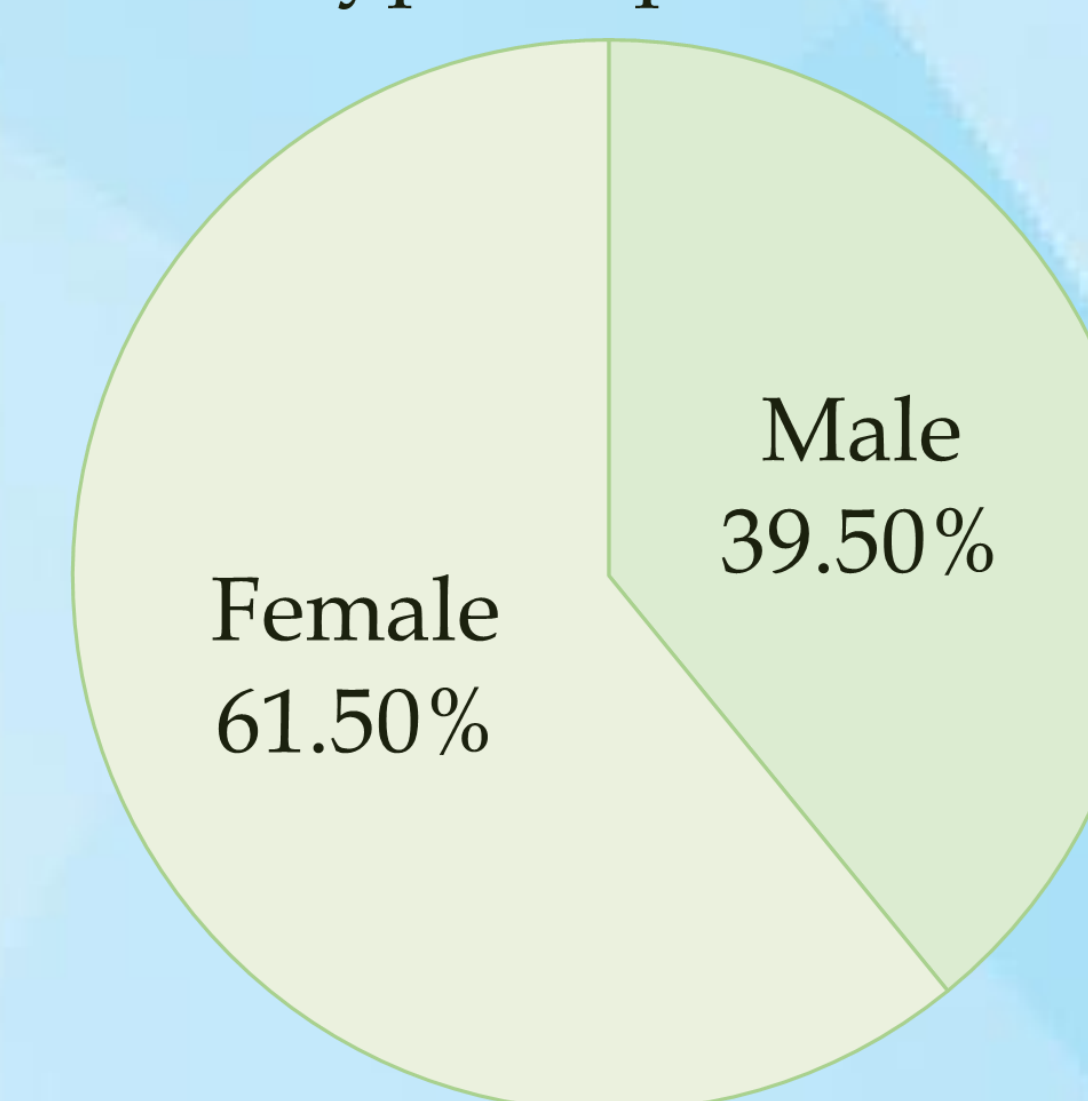
Percentage of Patients with Dyspigmented Donor Sites vs Age



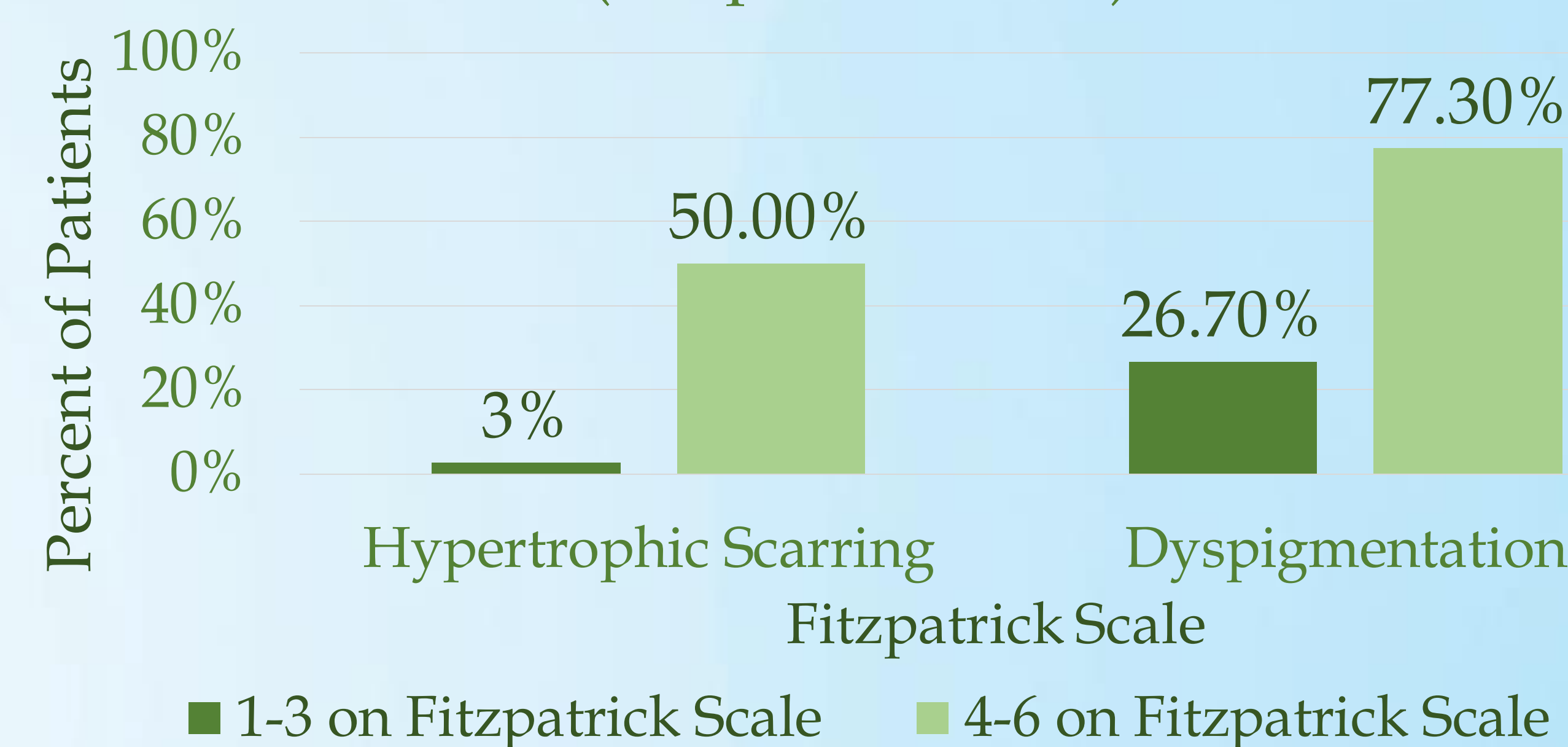
Donor Site Healing Time vs Patient Percentage with Dyspigmentation



Gender Breakdown of Patients with Hypertrophic Scarring



Donor Site Complication vs Skin Type (Fitzpatrick Scale)



Conclusion

A significant number of patients treated with a STSG are left with donor sites that cause long-term scars and dyspigmentation.

This study found that factors influencing dyspigmentation and/or hypertrophic scarring include:

- darker skin-types
- unhealthy BMI
- gender
- longer donor site healing time
- hypertension and diabetes

Factors with little to no effect on donor site complications include:

- graft thickness
- donor site location
- post-operative dressings of the donor site



Donor site that is flat and normally pigmented



Donor Site with hypertrophic scarring and dyspigmentation

