

Cosmetic Treatments in Head Variant Linear Morphea: A Retrospective Cohort Study

Winnie Fan, BS,¹ Bianca Obiakor, BS,¹ Jason Pomerantz, MD,² William Hoffman, MD,² Matthew French, BS,³ and Anna Haemel, MD³

1. University of California, San Francisco School of Medicine, San Francisco, CA
2. Department of Plastics Surgery, University of California, San Francisco, San Francisco, CA
3. Department of Dermatology, University of California, San Francisco, San Francisco, CA

Introduction

- Head variant linear morphea, including Parry Romberg Syndrome (PRS) and *en coup de sabre* (ECDS), is an autoimmune sclerosing skin disease.
- Cosmetic procedures such as dermal injectables and fat transfers, have been used to address facial cosmetic defects caused by morphea.
- Data on safety/efficacy of these procedures are limited.

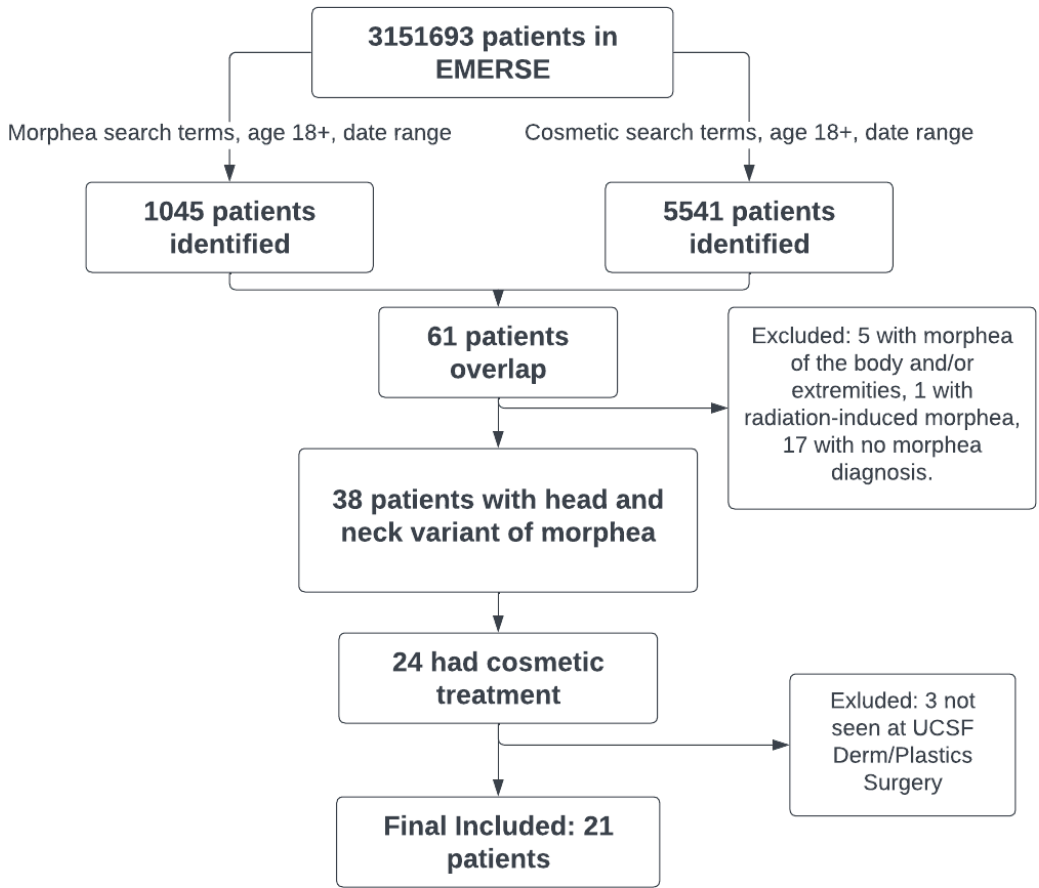
Project Aims:

To assess the efficacy, optimal treatment parameters, and outcomes of autologous fat transfers/injectable treatments in patients with head and neck variants of morphea.

Project Design/Methods:

Retrospective cohort of adult patients with ECDS/PRS seen within UCSF Dermatology and Plastic Surgery between 1/1/2015– 6/13/2023, who had cosmetic treatments (autologous fat transfer and/or dermal fillers) for defects caused by morphea.

Figure 1: Study Patient Population Flow Diagram



Results

Study population:

- 21 adult patients were included; Mostly female 90.5%, white 38.1%, and non-Hispanic 52.4%.
- Average age of onset was 37.14, range [20,71].

Table 1: Morphea Disease Characteristics

Morphea Type	Counts	%
PRS	9	42.9%
ECDS and PRS	7	33.3%
ECDS	4	19.0%
PRS and Plaque Morphea	1	4.8%
Disease Severity		
Moderate	8	38.1%
Mild	7	33.3%
Severe	6	28.6%

- 19.0% had autoimmune comorbidities.
- 52.4% had systemic treatments, most commonly MTX (81.2%) and glucocorticoids (81.2%).

Cosmetic Treatments:

- Autologous fat transfers (90.5%) were the most common cosmetic procedures, followed by dermal fillers (9.5%) and septoplasties (9.5%).
- Most commonly treated areas were cheeks (66.7%), forehead (57.1%), Nose (38.1%), and jawline (38.1%)
- 6 patients (28.6%), had complications, most commonly disease reactivation (n=3, 50.0%) and fat migration (n=2, 33.3%).

Figure 1: Association Between Stable Disease at Treatment Initiation and Disease Reactivation

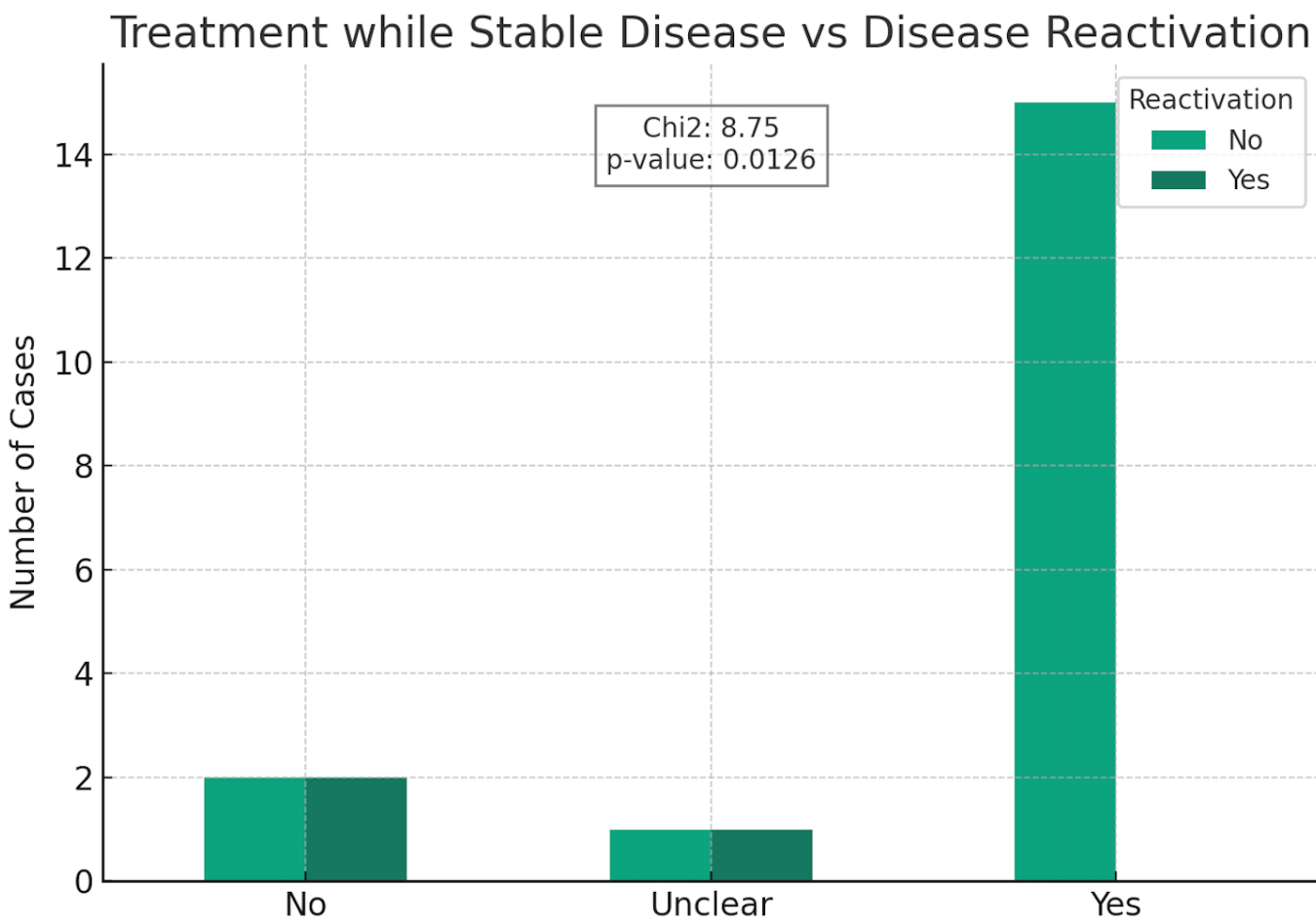
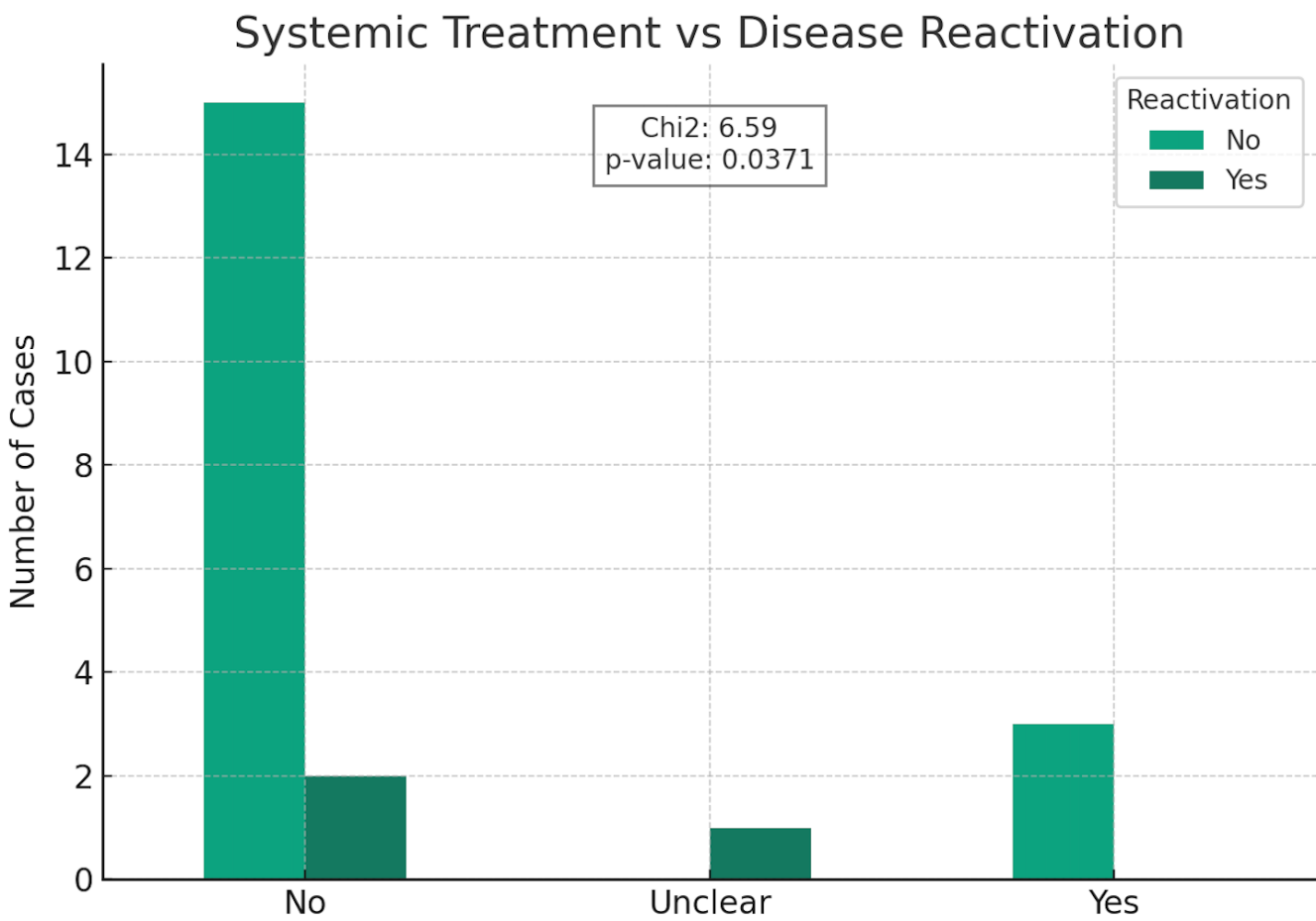


Figure 2: Association Between Systemic Treatment Application With Disease Reactivation



Discussion

Autologous Fat Transfers for PRS/ECDS

- Improves patient satisfaction, aesthetic appearance, and facial symmetry.
- Treatment while on systemic medication or during disease inactive state may avoid disease flare-ups.
- Ongoing surveillance to monitor for disease activity.

Optimizing Fat Transfers

- Repeat fat transfers or methods like injecting stem cells and angiogenic factors may improve graft survival.¹⁻³
- Injection volume should be tailored to morphea defect severity.

Advantages over Dermal Fillers

- Dermal fillers may require frequent treatments for volume maintenance.

Study Strengths and Limitations

- Strength: large patient sample given disease rarity.
- Weakness: retrospective nature of study and reliance on subjective patient reports.

References

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