



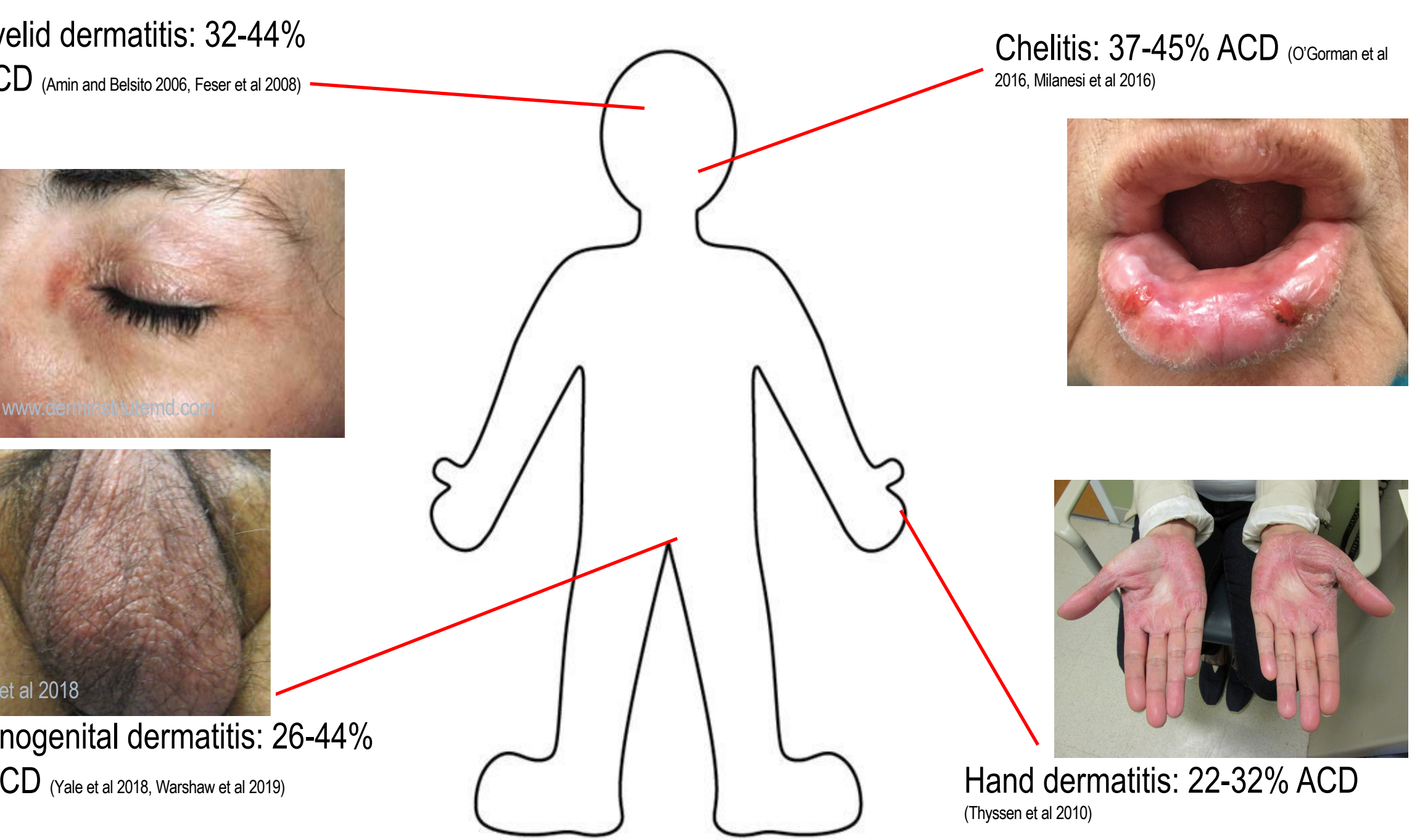
Interim Report from Patch Testing Database

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Introduction/Specific Aims

Patch testing is the gold standard for diagnosing allergic contact dermatitis. We created a prospective and retrospective cohort patch test study at University California, Davis (UCD) with the purpose of characterizing clinical presentation and phenotype, histologic findings, and outcomes of patch testing.



Methods

- Institutional review board approval was obtained for the prospective and retrospective study done at UCD. Patients referred for patch testing were given the opportunity to consent.
- Information pertaining to characteristics and outcomes of interest are recorded and stored in REDCap™.
- Descriptive statistics and measures of association were calculated using Stata ® 12 (Stata Corp, College Station, TX).

Results

- Of 112 participants, 59.1% were of Caucasian, 15.5% Asian American, 4.5% African American, and 1.8% Hispanic descent (Fig 1).
- More females presented for patch testing than males, 3:1 ratio was observed.
- Median age was 56 years old and the most common area of presentation was the upper and lower extremities, followed by face.
- 35.7% of patients had a biopsy prior to patch testing with the majority of those reports mentioning spongiosis, eosinophils, and/or contact dermatitis (Fig 2).
- 76.9% of patients reported itch with rash as their primary symptom.
- 40.9% of patients had been diagnosed with atopic dermatitis prior to patch testing.
- At final patch test reading, 67% of patients were diagnosed with allergic contact dermatitis (ACD) (Fig 3).
- Previous history of atopic dermatitis; biopsy results mentioning contact dermatitis, spongiosis, or eosinophils were not significantly associated with a final diagnosis of ACD post patch testing. Hand dermatitis and facial presentation were significantly associated with a final ACD diagnosis, $p = 0.002$ and $p < 0.0001$ respectively.

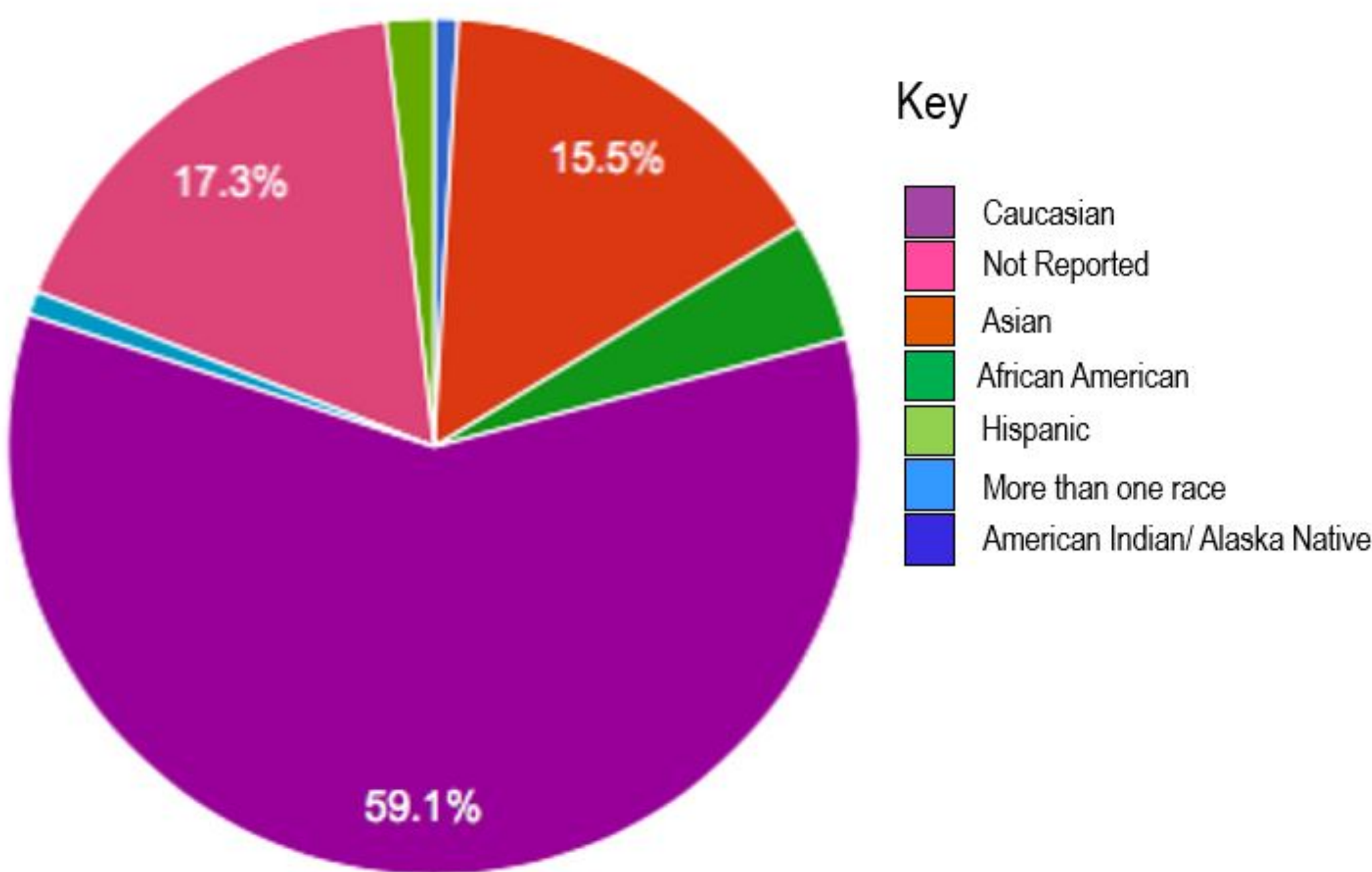


Figure 1: Racial demographics of patch test patients

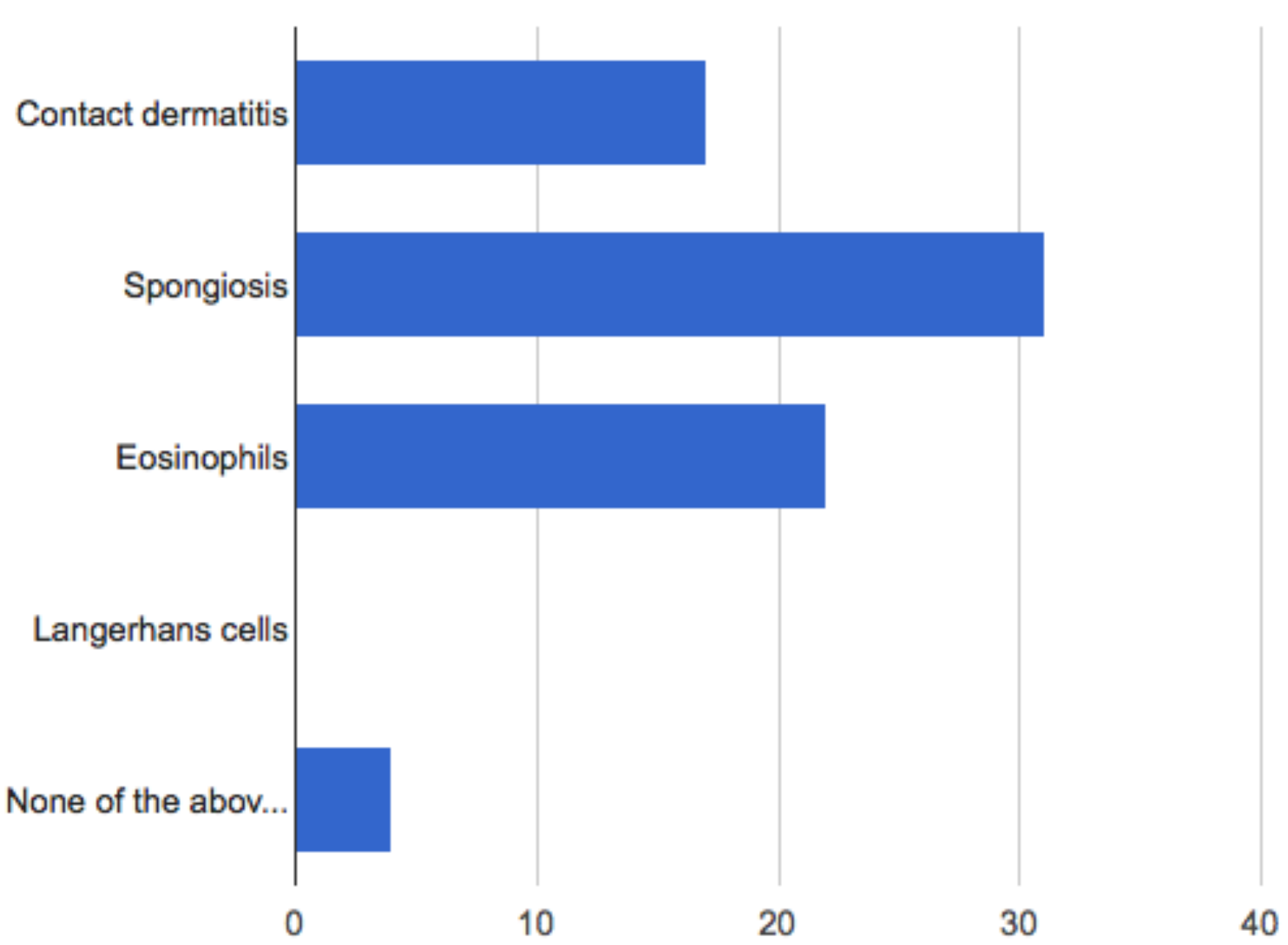


Figure 2: Biopsy reports of patch test patients

Results

- 2-3 months following patch testing, 30.5% of patients followed up with the patch test provider; of those, 34% correctly recalled their allergen testing results
- 74.1% who returned for follow up were diagnosed as improved by patch test provider comparatively to initial visit
- 89.4% of patients who returned 2-3 months post patch reported they would recommend patch testing to a friend

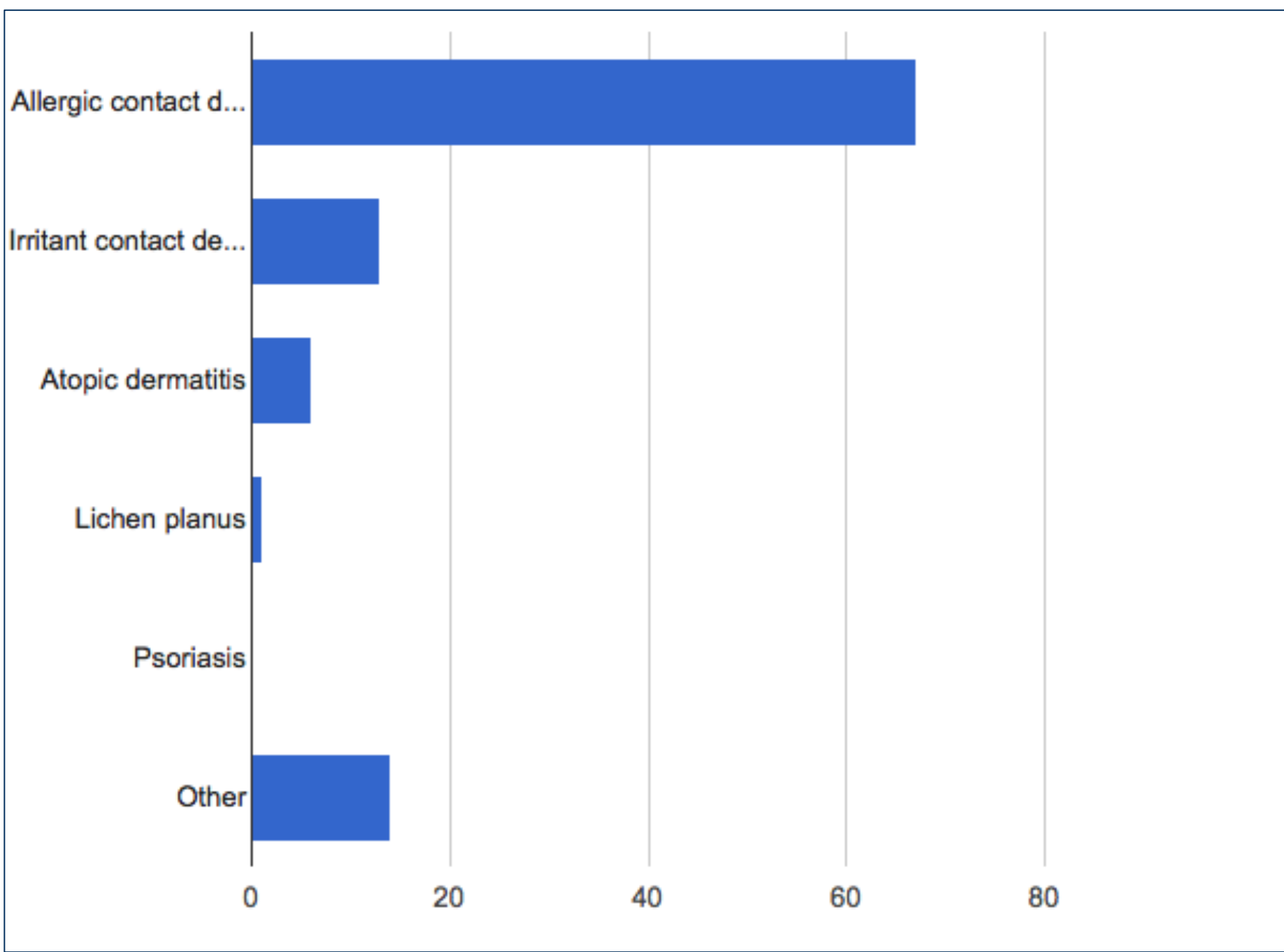


Figure 3: Final diagnosis at 96 hour patch test read

Conclusion

- Of the patients who returned post patch and were diagnosed with allergic contact dermatitis, 43.2% reported improvement in their skin condition after three continuous months of allergen avoidance based on their patch test results
- Preliminary analysis of a diverse patch test population supports and extends data from other cross-sectional studies
- We hope to further expand this database to better describe and quantify the effects of patch testing on quality of life

References

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