

## Background & Aims

- Recent data indicates that there is significant variability in the severity of psoriasis between racial and ethnic groups
- Though the US Latino population is growing at a rapidly increasing rate, little research has been dedicated to elucidating the underlying mechanisms responsible for the increased severity of psoriasis observed in this underserved population

## Methods and Materials

- A comprehensive review of the literature was conducted to evaluate the current evidence on the presentation and treatment of psoriasis in Latinos within the US
- A search for peer-reviewed articles was performed in September 2019 on the PubMed database using search terms including “psoriasis” or “psoriatic disease” and “Latino,” “Hispanic” and/or “Latin Americans”

## Results

- Psoriasis occurs in 1.6% of US Latinos, compared to 3.7% and 2.0% of US white and black populations, respectively
- Severity of psoriasis is increased in Latino patients (PASI 24.8-29.2 and IGA 40-49%) compared to non-Latino patients (PASI 22.1-22.4 and IGA 36-39%)<sup>1</sup>
- Latinos were more likely to present with pustular psoriasis compared to whites (OR 5.94 [95% CI 1.03-31.03])<sup>2</sup>
- QOL impact of psoriasis, indicated by higher scores on the Dermatology Life Quality Index (DLQI), is significantly worse in Latino patients compared to whites (14.6 versus 12.0, respectively), even when controlling for BSA<sup>3</sup>
- Latino psoriasis patients are disproportionately burdened by obesity<sup>2</sup>
- Evidence shows non-inferior or enhanced response to systemic treatments, such as etanercept, secukinumab, and brodalumab (see Table 1)

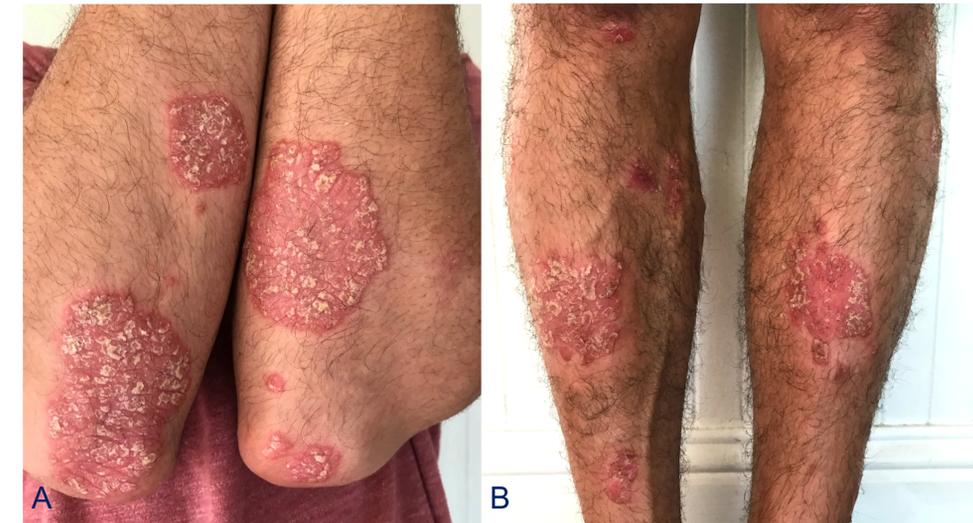


Figure 1. Psoriatic plaques on the bilateral upper (A) and distal lower (B) extremities in a Latino patient.

Table 1. Summary of studies examining treatment safety and efficacy in Latino psoriasis patients. RTC = randomized control trial; wk = week; PASI = Psoriasis area and severity index

Author & Year	Study Objective	Study Type	Latino Sample Size (n/total n)	Findings
Shah et al. 2011 <sup>3</sup>	Ethno-racial variance among patients treated with etanercept	Retrospective	173/2,511	<ul style="list-style-type: none"> <li>50.2% improved BSA from baseline with etanercept in Latinos; 51.13% in whites</li> </ul>
Adsit et al. 2017 <sup>1</sup>	Efficacy and safety of secukinumab in Latino patients	Pooled RCT analysis	474/3,418	<ul style="list-style-type: none"> <li>PASI 90 and PASI 100 with secukinumab 82.1% and 53.1% in Latinos, respectively; 74.2% and 40.6% in non-Latinos at 16 wks</li> <li>PASI 90 and PASI 100 with etanercept 54.1% and 15.3% in Latinos, respectively; 30.2% and 7.6% in non-Latinos, at 16 wks</li> </ul>
McMichael et al. 2019 <sup>4</sup>	Ethno-racial variance among patients treated with brodalumab	Pooled RCT analysis	200/1,849	<ul style="list-style-type: none"> <li>PASI 100 at wk 52 after treatment with brodalumab 52.2% Latinos 51.9% whites</li> </ul>
Tyring et al. 2010 <sup>5</sup>	Efficacy and safety of calcipotriene and betamethasone dipropionate scalp formation in Latino and black patients	RCT	99/177	<ul style="list-style-type: none"> <li>65.3% Latinos cleared or minimal disease at wk 8 with calcipotriene and betamethasone dipropionate</li> </ul>

## Discussion

- Lower prevalence in the Latino population may be influenced by under-reporting, lack of inclusion of diversity in psoriasis studies, and selection bias
- Latino psoriasis patients are burdened by more severe disease and a greater quality of life impact compared to white psoriasis patients
- Latino psoriasis patients experience higher rates obesity. More studies are required to determine whether other comorbidities that disproportionately affect Latino patients contribute to increased severity of psoriatic disease
- There is evidence suggesting non-inferior or superior response to systemic treatments, such as etanercept, secukinumab, and brodalumab, in the Latino psoriasis population

## Conclusions

- Barriers to care and lack of involvement in current research studies limit our understanding of the mechanisms impacting pathologic outcomes and the environmental and social disparities observed
- Evidence demonstrating non-inferior or enhanced response to systemic treatments in this population is encouraging as it suggests that with further research, education, and awareness, clinicians may be better able to meet the health care demands of this medically underserved and overburdened psoriasis population

## Contact

Alyssa Ashbaugh, MS4  
UCI School of Medicine  
Email: ashbauga@uci.edu

## References

- Adsit S, Zaldívar ER, Sofen H, et al. Secukinumab is Efficacious and Safe in Hispanic Patients with Moderate-to-Severe Plaque Psoriasis: Pooled Analysis of Four Phase 3 Trials. *Adv Ther.* 2017;34(6):1327-1339. doi:10.1007/s12325-017-0521-z
- Yan D, Afifi L, Jeon C, Cordero KM, Liao W. A cross-sectional study of the distribution of psoriasis subtypes in different ethno-racial groups. *Dermatol Online J.* 2018;24(7):0-3. <https://escholarship.org/uc/item/5z21q4k2>.
- Shah SK, Arthur A, Yang Y-C, Stevens S, Alexis AF. A retrospective study to investigate racial and ethnic variations in the treatment of psoriasis with etanercept. *J Drugs Dermatol.* 2011;10(8):866-872. <http://www.ncbi.nlm.nih.gov/pubmed/21818507>.
- McMichael A, Desai SR, Qureshi A, Rastogi S, Alexis AF. Efficacy and Safety of Brodalumab in Patients with Moderate-to-Severe Plaque Psoriasis and Skin of Color: Results from the Pooled AMAGINE-2/-3 Randomized Trials. *Am J Clin Dermatol.* 2019;20(2):267-276. doi:10.1007/s40257-018-0408-z
- Tyring S, Mendoza N, Appell M, et al. A calcipotriene/betamethasone dipropionate two-compound scalp formulation in the treatment of scalp psoriasis in Hispanic/Latino and Black/African American patients: Results of the randomized, 8-week, double-blind phase of a clinical trial. *Int J Dermatol.* 2010;49(11):1328-1333. doi:10.1111/j.1365-4632.2010.04598.x