Introduction

- Atopic dermatitis (AD) is a chronic inflammatory skin disorder and a leading contributor to skin-related disability.¹
- Management of AD involves a step-up approach: emollients, topical modulators, biologics, and small molecules
- Dupilumab (Dupixent) is a monoclonal antibody that downregulates Th2 inflammation via blockade of IL-4 and IL-13 signaling that is FDA-approved for treatment of moderate to severe AD in patients 6 months of age and older.²,³
- Topical ruxolitinib (Opzelura) is a JAK1/2 inhibitor FDA-approved for use in patients 12 years and older for short-term, non-continuous treatment of mild to moderate AD.⁴

Problem:

● Despite data that a sizable number of patients on dupilumab can achieve an IGA score of 0-1 after 16 weeks of therapy, a population of AD patient who fail to achieve this outcome remains.⁵
● The package insert for ruxolitinib states, “Use … in combination with therapeutic biologics, other JAK inhibitors or potent immunosuppressants such as azathioprine or cyclosporine is not recommended.”⁶ This concern has not been substantiated by randomized, controlled trials.

In practice: we have opted to engage patients with persistent AD of <5% BSA in shared decision-making prior to offering topical ruxolitinib as an adjunct therapy; many of these patients are ultimately able to achieve clear or almost clear skin (IGA 0/1).

Objective

To identify a population of patients receiving dupilumab for AD who use or have used concomitant topical ruxolitinib and describe their experiences.

Methodology

1. We queried our clinic’s EMR under 1 provider for L20 (ICD-10: atopic dermatitis)
2. Filter: taking or have taken “Dupixent” or “dupilumab” in the past year → 84 patients
3. Filter: taking or have taken “Opzelura” or “topical ruxolitinib” in the past year → 9 patients
4. We then summarized data on age, gender, location of persistent AD, identifiable triggers, and response to additive treatment with ruxolitinib

Results

Method of Receipt: Ruxolitinib

- 4 patients reported subjective improvement:
  - “significant, but not complete relief; cheeks now just forehead”
  - “decreased itchiness”
  - “helpful, very beneficial”
  - “well controlled, few remaining patches on hands and arms”

- 0 reports of adverse effects

Barriers to continuing topical ruxolitinib

● Cost
● Insurance non-coverage
● Being told to not use dupilumab while on a JAK inhibitor or other biologics

Shortest duration of use: 2 weeks due to the above

Conclusion

Interpretation of data:

For some patients with persistent AD despite dupilumab therapy, short-term use of topical ruxolitinib could be of high utility and low risk.

Barriers to use:

● Lack of randomized controlled trials
● Insurance non-coverage
● Cost

Limitations to this study:

● Observational nature
● Small sample size (n = 9)

Future Directions

Collect more data!

● Formal placebo-controlled studies
● Laboratory parameters
● Validated scoring metrics for AD response to therapy

References


