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Apr 1st, 12:00 AM

Crisaborole and Quality of Life in Patients with Mild to Moderate Atopic Dermatitis: a Public Health Approach

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Puerta, Alejandra; Drugge, Elizabeth PhD, MPH; and Loh, Ellen BSPHarm, MBA, PhD, "Crisaborole and Quality of Life in Patients with Mild to Moderate Atopic Dermatitis: a Public Health Approach" (2020). *Annual SHSP Student Research and Scholarship Day*. 3.

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Crisaborole and Quality of Life in Patients with Mild to Moderate Atopic Dermatitis: a Public Health Approach

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Background

Atopic dermatitis (AD) is a chronic disease negatively impacting patients (physically and psychologically), society, and the healthcare system. Although the etiology of AD is complex, pruritis is present in most cases and contributes significantly to decreased Quality of Life (QoL). Focus on the inflammatory pathway and the role of phosphodiesterase (PDE) led to the development of Crisaborole, the first topical anti-inflammatory agent for AD in 15 years and approved Dec. 2016. Although other topical agents, corticosteroids and calcineurin inhibitors, are effective, safety concerns inhibit consistent use. Given the positive benefit/risk ratio of Crisaborole demonstrated in clinical trials, we conducted a literature review to explore the effect of Crisaborole on patient QoL associated with mild to moderate atopic dermatitis.

Methods

A search for “Crisaborole and QoL” in “Journal Articles” in PubMed and Embase resulted in 95 articles. Exclusions included reviews, expert opinions, and those without abstracts. Inclusions were meeting presentations and QoL as a secondary outcome written in English or Spanish, from 2016 to 2020. QoL measures include validated severity assessment tools, SCORing AD (SCORAD), Patient-Oriented Eczema measure (POEM), Patient-Oriented SCORAD (PO-SCCORAD), (Children’s) Dermatology Life Quality Index (C) DLQI, and Severity of Pruritus Scale (0-3).

Results

Crisaborole treatment improved CDLQI and DLQI scores in 2 multicenter, double-blind, vehicle-controlled Phase 3 studies in AD patients older than 2 years. Post-hoc mediation modeling of the studies suggests that QoL improvement was due primarily to an early reduction in pruritis. Pooled post-hoc analysis of the efficacy and safety of Crisaborole according to race and ethnicity reported improved QoL measures across all age and race/ethnic categories.

Conclusion

Compromised QoL related to mild to moderate AD poses a significant public health burden. Although more studies assessing the effect of Crisaborole on QoL in different populations are needed, available studies suggest that Crisaborole offers a promising treatment option in which QoL is prioritized. Furthermore, given the complexity of the disease and inconsistencies in treatment guidelines across healthcare disciplines, the addition of Crisaborole, a choice with fewer side effects than other topical agents, offers a path to improving QoL in those affected with mild to moderate AD.