Characteristics of adult patients with atopic dermatitis initiating biologics and JAK inhibitors in the CorEvitas AD Registry

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Introduction/Background: Biologics and Janus kinase inhibitors (JAKi) are promising treatment options for patients with atopic dermatitis (AD)[1]; however, no studies, to our knowledge, have evaluated differences in characteristics of patients on these medications in a real-world setting.

Objective: This study sought to describe the demographics, clinical characteristics, treatment patterns, and disease severity and patient-reported outcome measures of adult patients with AD initiating either a biologic or JAKi in the prospective, non-interventional CorEvitas AD Registry.

Methods: This cross-sectional study included patients initiating either a biologic (dupilumab or tralokinumab) or JAKi (abrocitinib or upadacitinib) in the CorEvitas AD Registry between 7/21/2020 and
Patient characteristics were summarized at initiation of therapy using descriptive statistics, overall and by prior experience with biologic/JAKi therapy and systemic therapy (any registry-eligible systemic medication). Additionally, exploratory multivariable modified-Poisson regression was used to identify factors associated with biologic vs. JAKi initiation. Variables were selected by first using bivariate regression, and covariates with p-values ≤0.15 were submitted to a backward selection process. Age, sex, and race were included in the final model for representation purposes.

Results: The study reported 1,958 initiations, with 1,604 biologic initiations and 354 JAKi initiations. The initiated medication was the first-line systemic among 86.4% of the biologic initiators and 40.7% of the JAKi initiators. Biologic initiators were slightly older than JAKi initiators (mean age 50.7 years, SD 18.5 vs. mean 47.9, SD 17.0 years), with no major differences in sex, race/ethnicity, education, or work status. Differences were seen in history of infections (32.7% in biologic initiators vs. 44.9% in JAKi initiators) and rosacea (12.1% biologics vs. 5.9% JAKi). Furthermore, biologic initiators had greater disease severity than JAKi initiators as measured by body surface area % involvement (mean 26.0, SD 20.2 vs. mean 18.3, SD 19.4), validated Investigator Global Assessment for AD (severe vIGA-AD™, 34.4% vs. 24.6%), Eczema Area and Severity Index (EASI, mean 14.5, SD 12.0 vs. mean 10.7, SD 11.1) and SCoring AD (SCORAD, mean 48.2, SD 19.8 vs. mean 42.2, SD 20.1). Patient-reported outcomes were similar between groups.

In adjusted analyses, factors positively associated with JAKi initiation compared to biologics included living in the Midwest US (vs. Northeast US, RR: 1.50, 95% CI: 1.14, 1.97), worst skin pain in 24 hours (RR: 1.05, 95% CI: 1.02, 1.09), and prior use of 1 or 2+ systemic therapies (vs. none, RR: 4.30, 95% CI: 2.29, 8.07 and RR: 5.49, 95% CI: 3.06, 9.84, respectively). Factors positively associated with biologic initiation included having a history of cancer (RR: 0.33, 95% CI: 0.22, 0.49), moderate vIGA-AD™ (vs. clear, RR: 0.74, 95% CI: 0.56, 0.98), hand involvement (RR: 0.73, 95% CI: 0.62, 0.86), and worst itch in 24 hours (RR: 0.97, 95% CI: 0.94, 0.99).
Conclusions: In this real-world assessment, certain characteristics differed between adult patients with AD initiating either biologics which were most commonly first-line agents or JAKi (more likely used after other systemic agents), although some effect sizes were small and may not be clinically meaningful. Study limitations to consider include that characteristics associated with biologic or JAKi initiation may be influenced by timing of medication approval and availability. These foundational results highlight the importance of individualized patient assessment when deciding among different therapeutic approaches.

Keywords: Atopic dermatitis, Biologics, JAK inhibitors, Real-world evidence
Figure. Adjusted risk ratios (RR) and corresponding 95% CI for factors associated with initiating JAKi compared to biologics among patients in the CorEvitas AD Registry. RR>1 represent factors positively associated with JAKi initiation (magenta) and RR<1 represent factors positively associated with biologic initiation (blue).

Reference:


Acknowledgments and Funding Sources:

Medical writing assistance was provided by Kelly Strutz, PhD, of CorEvitas, LLC and funded by Eli Lilly and Company.
This study was sponsored by CorEvitas, LLC. CorEvitas has been supported through contracted subscriptions in the last two years by AbbVie, Amgen, Inc., Arena, Boehringer Ingelheim, Bristol Myers Squibb, Chugai, Eli Lilly and Company, Genentech, GSK, Johnson & Johnson Innovative Medicine, LEO Pharma, Novartis, Ortho Dermatologics, Pfizer, Inc., Sun Pharmaceutical Industries Ltd., and UCB S.A.

Disclosures:

ES: Personal fees from Advances in Cosmetic Medical Derm Hawaii LLC, AbbVie, Amgen, AOBiome LLC, Arcutis Biotherapeutics, Arena Pharmaceuticals, Aslan Pharma, Boehringer-Ingelheim USA, Inc., Boston Consulting Group, Bristol Myers Squibb – BMS, Collective Acumen LLC (CA), CorEvitas, Dermira, Eli Lilly, Evelo Biosciences, Evidera, ExcerptaMedica, FIDE, Forte Bio RX, Galderma, GlaxoSmithKline, Incyte, Janssen, Johnson & Johnson, Kyowa Kirin Pharmaceutical Development, Leo Pharm, Medscape LLC, Merck, MauiDerm, MLG Operating, MJH holding, Pfizer, Physicians World LLC, PRImE, Regeneron, Revolutionizing Atopic Dermatitis Inc, Roivant, Sanofi-Genzyme, Trevi therapeutics, Valeant, Vindico Medical education, WebMD. Grants (or serves as Principal investigator role) from AbbVie, Acrotech Biopharma Inc, Amgen, Arcutis, Aslan, Castle Biosciences, CorEvitas, Dermavant, Dermira, Eli Lilly, Incyte, Kymab, Kyowa Kirin, National Jewish Health, Leo, Pfizer, Regeneron, Sanofi, and Target RWE. These potential conflicts of interest have been reviewed and managed by OHSU.

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DD: Industry Speaker Bureau and Advisory Boards: AbbVie, Amgen, Arcutis, BMS, Boehringer Ingelheim, Incyte, Janssen, Lilly, Novartis, Sanofi/Regeneron, UCB.

JIS: Honoraria as a consultant and/or advisory board member for AbbVie, AObiome, Arcutis, Alamar, Amgen, Arena, Arcutis, Asana, Aslan, BioMX, Biosion, Bodewell, Boehringer-Ingelheim, Cara, Castle Biosciences, Celgene, Connect Biopharma, Dermavant, Dermira, Dermtech, Eli Lilly, Galderma, GlaxoSmithKline, Incyte, Kiniksa, Leo Pharma, Menlo, Novartis, Optum, Pfizer, RAPT, Regeneron, Sanofi-Genzyme, Shaperon, Union; speaker for Abbvie, Eli Lilly, Leo Pharma, Pfizer, Regeneron, Sanofi-Genzyme; institution received grants from Galderma, Pfizer.