**SYNOPSIS**
- Psoriasis is a chronic, systemic, immune-mediated disease of the skin that affects > 7.4 million people in the United States, with an estimated prevalence of 2% to 4%.
- Secukinumab is a fully human monoclonal antibody that selectively neutralizes interleukin (IL)-17A and has shown long-lasting efficacy and safety in the treatment of the complete spectrum of psoriasis manifestations, including nail, scalp, and palmoplantar psoriasis and psoriatic arthritis.
- There remains limited information on the effectiveness of secukinumab treatment in patients with plaque psoriasis in US real-world settings.

**OBJECTIVE**
To describe real-world effectiveness outcomes in US patients with plaque psoriasis who initiated secukinumab in clinical practice, using clinical data obtained from the Modernizing Medicine Data Services (MDDS) electronic medical records (EMRs) dermatology panel.

**METHODS**

**Study Design and Patient Population**
- All data were collected from Modernizing Medicine’s Electronic Medical Assistant (EMA) system.
- EMA delivers structured, real-world data captured from > 500,000 unique patients with psoriasis.
- Data from EMRs for patients in the United States with a clinical diagnosis of psoriasis were de-identified in accordance with HIPAA (Health Insurance Portability and Accountability Act) for research use.
- Eligible patients in the MDDS database had a diagnosis of plaque psoriasis during the study period of July 1, 2014, to March 31, 2018, had ≥ 1 prescription order for secukinumab within the index period (January 1, 2015, to September 30, 2017), and were aged ≥ 18 years at the time of secukinumab initiation (index date).
- Patients had ≥ 1 clinical visit for any reason during the 6-month pre-index (baseline) period and ≥ 1 clinical visit for any reason within each of the first and second 6 months following secukinumab initiation.

**Study Variables and Data Analysis**
- Outcomes were assessed in two cohorts: patients who had ≥ 6 months of follow-up and those who had ≥ 12 months of follow-up.
- Demographic characteristics (age, sex, race, body weight, US region), treatment history (during 6-month pre-index period only), and clinical characteristics (comorbidities, psoriasis subtype, body surface area [BSA]), and Physician Global Assessment (PGA) were assessed by dermatology providers during the 6-month baseline period.
- Mean (SD) and categorical BSA and Physician Global Assessment (PGA) scores were evaluated during the 6-month baseline period and at 6-month (window, 5-7 months) and 12-month (window, 11-13 months) follow-up visits among patients with scores reported at baseline and follow-up.
- Categorical changes from baseline to 6- and 12-month follow-up visits were calculated among patients with both baseline and follow-up BSA and PGA measurements available.

**RESULTS**

**Patient Demographics**
- Among patients who initiated secukinumab with 6 months (N = 6658) and 12 months of follow-up (N = 4996), the mean (SD) age was 51.1 (13.9) and 51.6 (13.7) years, respectively, 50.6% and 50.5% were male, and all US geographic regions were represented (Table 1).

**Limitations**
- The MDDS database included data captured only from physicians contributing to the EMR network (that was then de-identified), and results may not be generalizable to all patients with psoriasis.
- No continuous health plan enrollment information was captured in the EMR database.
- Patients with comorbid psoriatic arthritis or ankylosing spondylitis initiating secukinumab were not excluded from the study population, leading to potential confounding variables.
- This study was retrospective in nature and relied on coding to make associations between secukinumab exposure and effectiveness outcomes.

**DISCLOSURES**
P. S. Yamauchi has served as an investigator for Amgen, Galderma, Janssen, LEO Pharma, Eli Lilly, Medimmune, Novartis, Pfizer, Regeneron, and Sandoz and has served as an advisor and/or speaker for AbbVie, Amgen, Baxter, Celgene, Dermira, Galderma, Janssen, LEO Pharma, Eli Lilly, Novartis, Pfizer, and Regeneron. C.-C. Chen and Y. Ding are employees of IQVIA who received consulting fees to conduct this research. R. Germino is an employee of Novartis Pharmaceuticals Corporation.

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