FDA Approves Mirikizumab-Mrkz to Treat Adult Patients With Crohn Disease

Key Takeaways

- Mirikizumab targets IL-23p19, reducing inflammation in Crohn's disease, and is the first biologic in 15 years with 2-year phase 3 efficacy data.
- The VIVID-1 trial demonstrated mirikizumab's efficacy, achieving key secondary endpoints and non-inferiority to ustekinumab for clinical remission.
- Safety profiles of mirikizumab and ustekinumab were similar, with comparable rates of treatment emergent adverse events and serious adverse events.
- Mirikizumab is under evaluation in the VIVID-2 trial for long-term efficacy and safety, with promising results for maintaining clinical remission.

This is mirikizumab's second FDA-approved indication in inflammatory bowel disease.

The FDA approved mirikizumab-mrkz (Omvoh; Eli Lilly and Co.) for the treatment of moderately to severely active Crohn disease in adult patients. The approval follows positive results from the phase 3 VIVID-1 clinical trial (NCT03926130).[1,2]

Mirikizumab reduces the inflammation within the gastrointestinal tract by targeting a specific protein interleukin (IL)-23p19, which is a key contributor to intestinal inflammation. According to experts, it is the first biologic treatment in over 15 years to have disclosed 2-year phase 3 efficacy data in Crohn disease at the time of its approval. Following its approval as a first-in-class treatment for moderately to severely active ulcerative colitis (UC) in adults in October 2023, this is the second indication for inflammatory bowel disease (IBD) in which mirikizumab has been approved.[1]

"The burden of Crohn disease on patients' daily lives is substantial," Michael Osso, president and CEO of the Crohn's & Colitis Foundation, said in a news release. "This approval is meaningful for adult patients with Crohn disease, who now have more treatment options available."[1]

The approval is based on positive findings from the multicenter, randomized, double-blind, placebo- and active-controlled, treat-through phase 3 clinical trial, VIVID-1 (NCT03926130), which enrolled adults with moderately to severely active Crohn disease who had an inadequate response, loss of response, or intolerance to either corticosteroids, immunomodulators, and/or biologics. The trial assessed the safety and efficacy of mirikizumab in this patient population.[1,2]

A total of 1065 patients were randomly assigned to 1 of the following treatment arms: 900 mg of intravenous (IV) mirikizumab every 4 weeks to week 12, then 300 mg subcutaneously every 4 weeks; one 90-mg dose of IV ustekinumab (Stelara; Janssen Biotech Inc), then 90 mg subcutaneously every 8 weeks; or IV or subcutaneous placebo every 4 weeks. Those who received the placebo and were non-responders at the 12-week point received 900 mg of IV mirikizumab every 4 weeks for 3 doses, then 300 mg subcutaneously every 4 weeks until the end of the trial.[2,3]

The efficacy of mirikizumab compared with ustekinumab was assessed by the proportion of patients who achieved endoscopic response and clinical remission by Crohn's Disease Activity Index (CDAI) at week 52. Additional end points included endoscopic remission, corticosteroid-free clinical remission (determined by CDAI), and the composite of CDAI clinical remission and endoscopic response at week 52. Baseline characteristics were overall balanced across the 3 treatment groups, the investigators noted.[2,3]

The findings demonstrated that patients who were treated with mirikizumab achieved all key major secondary endpoints ($p < .000001$) compared to the placebo. Mirikizumab also achieved non-inferiority to ustekinumab for clinical remission by CDAI ($p = .113117$), but not in endoscopic response (not achieved; $p = .51$). Despite this, mirikizumab demonstrated a numerical trend towards greater response rates compared with ustekinumab endoscopic response and clinical remission by CDAI.[3]

The overall safety profile was consistent with the known safety profile of mirikizumab. The proportion of treatment emergent adverse events (AEs) were similar between mirikizumab (78.6%) and ustekinumab (77.3%), with the most common AEs being COVID-19, anaemia, arthralgia, headache, upper respiratory tract infection, nasopharyngitis, and injection site reaction. Additionally, instances of serious AEs were comparable for mirikizumab (10.3%) and ustekinumab (10.7%).[3]

"Many patients with Crohn disease have tried available therapies and are still seeking a treatment option that can work well for them to help control their disease," Marla Dubinsky, MD, chief, division of pediatric gastroenterology and nutrition and co-director of the Susan and Leonard Feinstein IBD Clinical Center at Mount Sinai Kravis Children's Hospital, Icahn School of Medicine Mount Sinai New York, said in the news release. "The FDA approval of [mirikizumab] may help adults with Crohn disease achieve long-term remission and visible healing of the intestinal lining, even if they have tried other medications that did not work or stopped working."[1]

Further, the investigators note that mirikizumab is continuing to be evaluated in the VIVID-2 trial (NCT04232553)4, an ongoing, open-label extension study evaluating the efficacy and safety of mirikizumab for up to 3 years in adults with moderately to severely active Crohn disease. Over 80% maintained endoscopic response with 1 year of additional treatment (2 years of continuous treatment), and among patients who achieved clinical remission and endoscopic response at 1 year in VIVID-1, nearly 90% of patients maintained clinical remission with 1 year of additional treatment (2 years of continuous treatment). Investigation is still ongoing.[1,4]

"People living with Crohn disease have shared with us how truly disruptive symptoms such as abdominal pain, frequent bowel movements and bowel urgency can be," Daniel M. Skovronsky, MD, PhD, chief scientific officer and president of Lilly Research Laboratories and Lilly Immunology, said in the news release. "With [mirikizumab] approved in both Crohn disease and UC, more patients now have a treatment option that may provide long-term disease control and address key symptoms that matter most to them, reflecting [our] ongoing commitment to elevate care and improve outcomes for patients."[1]

About the Trial

Trial Name: A Study of Mirikizumab (LY3074828) in Participants With Crohn's Disease (VIVID-1)

ClinicalTrials.gov ID: NCT03926130

Sponsor: Eli Lilly and Company

Completion Date: October 2, 2023

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