Neuropsychiatric Adverse Events in Brodalumab Psoriasis Studies

INTRODUCTION

- Psychosis has profound psychological implications that can affect the ability of patients to socialize with family members, interact with coworkers, and make friends.
- Psychotic.comorbidity, such as depression and anxiety, are common in patients with psoriasis.
- High ideation has been reported in as many as 17.3% of patients with psoriasis compared with 8.3% of healthy controls.
- Brodalumab is a monoclonal antibody that targets interleukin-17 (IL-17) receptor A and is indicated for the treatment of psoriasis.
- Brodalumab has demonstrated efficacy in the treatment of plaque psoriasis.
- Reports of suicide in patients with psoriasis enrolled in clinical trials for brodalumab led to concerns that brodalumab may be linked to psychiatric adverse events.

OBJECTIVE

- To assess psychiatric AEs and improvements in depression and anxiety in patients with psoriasis treated with brodalumab in clinical trials

METHODS

Clinical studies
- Efficacy and safety of brodalumab (140 or 210 mg every 2 weeks [Q2W]) were investigated in one phase 2 trial and in three phase 3, randomized, controlled trials of patients with moderate-to-severe plaque psoriasis (AMAGINE-1,2-3).
- In the phase 3 studies, more than 80% of patients were being treated with brodalumab 210 mg Q2W by the end of week 52.
- There were no specific exclusion criteria for psychiatric disorders or substance abuse.

Endpoints
- The hospital anxiety and depression scale (HADS), which determines anxiety and depression on a 21-point scale each, was measured in AMAGINE-1.
- The dermatology life quality index (DLQI) assesses the socio-psychological impact of the skin disease on patients’ lives and was measured in AMAGINE-1,2,3.
- Data on psychiatric AEs were pooled for all trials and were summarized as follow-up-time-adjusted event rates.
- The follow-up-time-adjusted event rate is the total number of events reported during the follow-up observation time divided by total patient-years of observation, which includes gaps and interruptions in exposure and time beyond the exposure period

RESULTS

- Mean HADS anxiety and depression scores significantly improved with brodalumab compared with placebo by week 12 (Figure 1).

CONCLUSIONS

- Mean HADS anxiety and depression scores were reduced from baseline in patients with moderate-to-severe plaque psoriasis receiving brodalumab.
- A higher patient satisfaction and quality of life was observed with brodalumab compared with placebo, as determined by DLQI response rate.
- Rates of SIB at week 52 in patients treated with brodalumab were similar to those treated with the active comparator ustekinumab, and SIB rates did not increase with long-term treatment.
- No pattern emerged between timing of the events and the initiation or withdrawal of brodalumab.
- Controlled data do not suggest a causal relationship between brodalumab treatment and SIB.

Acknowledgments: This study was sponsored by Ortho Dermatologics. Medical writing support was provided by MedThinks, Inc and funded by Ortho Dermatologics.