Injection-Related Reactions with Subcutaneous Administration of Ofatumumab in Relapsing Multiple Sclerosis: Data from Clinical Studies and Post Marketing Experience

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OBJECTIVE

To characterize the risk of injection-related reactions (IRRs: systemic and local-site) observed in relapsing multiple sclerosis (RMS) patients treated with ofatumumab in clinical trials and post-marketing surveillance.

BACKGROUND

In the core ASCLEPIOS I/II trials, IRRs were predominantly reported with the first ofatumumab injection. Most were mild-to-moderate in severity and non-serious in nature. No life-threatening/hypersensitivity reactions leading to discontinuation were observed. Updated information on IRRs is now available from the open-label extension study ALITHIOS and post-marketing surveillance.

DESIGN/METHODS

Data from patients treated with ofatumumab in the core ASCLEPIOS I/II trials and ALITHIOS study (overall, N=1969; patients who received continuous ofatumumab, N=1292; patients newly switched from teriflunomide to ofatumumab, N=677) and post-marketing surveillance (cut-off: 29-Jan-2021) were included in the analysis. Incidence of both systemic and local-site IRRs, their severity and seriousness were reported. The most commonly associated symptoms are summarized.

RESULTS

Systemic/local-site IRRs were observed in 24.6%/11.5% in overall; 25.6%/13.2% in continuous and 22.6%/8.3% in newly-switched groups. Upon first injection, incidence of systemic/local-site IRRs in overall, continuous, and newly-switched groups were 17.4%/2.9%, 17%/3.4%, and 18.2%/2.1%, respectively. Majority (99.5%) were mild-to-moderate (Grade 1/2) in severity. No

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life-threatening IRRs were observed during the study. In the overall population, systemic and local-site IRRs led to treatment discontinuation in 5 and 1 patient, respectively. The most common systemic IRR symptoms (≥5%) with all injections were fever, headache, chills, fatigue, and local-site IRR symptoms (≥3%) were erythema/redness and pain. From the post-marketing, 6 serious cases were assessed as potential systemic IRRs (HCP/non-HCP: 2/4): 1 patient was hospitalized with weakness. In addition, 5 patients reported serious hypersensitivity reactions (HCP/non-HCP: 1/4) including 1 anaphylaxis.

CONCLUSIONS

Systemic and local-site IRRs reported upon first injection with ofatumumab in the ALITHIOS trial and post-marketing surveillance were mostly mild-to-moderate in severity. These results are consistent with the Phase 3 ASCLEPIOS I/II trials.

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Submission requirements:

Scientific relevance:

This study in MS further assesses the risk of ofatumumab injection-related reactions by adding new data from the open-label extension study ALITHIOS and post-marketing surveillance.

Practice gap:

Reported findings from the open-label extension study ALITHIOS and post-marketing surveillance confirmed the safety findings of injection-related reactions which were observed in the ASCLEPIOS trials.

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