Final Results From the Registry to Evaluate Novantrone

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Abstract

Background: The RENEW study is a long-term, single-arm, open-label Phase III/IV study of novantrone (MitoXantrone®) in non-cancer multiple sclerosis (MS) patients. The primary objective is to evaluate the safety of mitoxantrone for the first-line treatment of relapsing-remitting MS (RRMS) patients. The purpose of this sub-analysis is to evaluate the bail-out treatment of RRMS patients who were unable to continue with the established benefit-risk profile of mitoxantrone.

Methods: Subjects received intravenous mitoxantrone (12 mg/m2) every 3 months for a cumulative dose of 69.8 (8.0–148.6) mg/m2. The treatment was continued for up to 5 years. The study treated a total of 509 patients with RRMS. The main endpoints were serious adverse events (SAEs), cardiac function, and LVEF. LVEF was evaluated by transthoracic or transesophageal echocardiogram and with MUGA scans. The all-cause incidence of secondary malignancies was assessed over the entire treatment period.

Results: A total of 486 patients were discontinued due to adverse events, clinical criteria, or patient request. Of these, 80 were considered related to mitoxantrone. The most frequent cardiac events included worsening CHF (6.1%), decreased cardiac output (5.3%), and worsening CHF/myocardial dysfunction (3.8%). Of the 120 patients with baseline LVEF assessment, 25 (20.8%) patients were reported to have left ventricular dysfunction (LVD). The incidence of secondary malignancies during the treatment period included leukemia (0.2%), prostate cancer (0.2%), and a pituitary tumor (0.2%).

Conclusions: In conclusion, the incidence of secondary malignancies with mitoxantrone in this study was similar to that reported in the long-term study of prostate cancer patients

Keywords: novantrone, multiple sclerosis, cardiac function, LVEF, secondary malignancies

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Reference: 1. Novantrone® for Injection Concentrate: Full Prescribing Information. EMD Serono, Inc., Rockland, MA, USA.