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Naxitamab for the treatment of refractory/relapsed high-risk neuroblastoma (HR NB): Updated efficacy and safety data from the international, multicenter phase II trial 201

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Background

Patients with HR NB (⊠50% of patients with NB at initial diagnosis) and limited or no response to initial therapy have poor outcomes, and residual disease can drive relapse. Naxitamab is a GD2-binding monoclonal antibody, recently approved in the US in combination with granulocyte-macrophage colony stimulating factor (GM-CSF) for the treatment of relapsed/refractory (R/R) HR NB in the bone and/or bone marrow (BM) in patients ≥1 year of age with a partial response, minor response, or stable disease to prior therapy. We present updated interim data from the pivotal trial for that accelerated approval.

Methods

Trial 201 is an international, multicenter, phase II trial designed to evaluate safety and efficacy of naxitamab in HR NB patients with primary refractory disease or incomplete response to salvage treatment in bone/BM. Patients with progressive or residual soft tissue disease were ineligible. Naxitamab was administered over ≥30 min in the outpatient setting on Days 1, 3 and 5 at 3 mg/kg/day (9 mg/kg/cycle) in combination with GM-CSF at 250 μg/m^2/day on Days -4 to 0 and at 500 μg/m^2/day on Days 1 to 5. Treatment cycles were repeated every 4 weeks. Efficacy was scored using international NB response criteria.

Results

As of March 2021, 48 patients were included in the safety population and 36 in the efficacy population. The overall response rate was 58% (21/36) with a complete response rate of 44% (16/36) and partial response rate of 14% (5/36). The median duration of response was 25 weeks. Infusion-related reactions (including pain) were the most common adverse events (AE), occurring in all patients. 11 patients reported 13 naxitamab-related SAEs (4 hypotension, 4 anaphylactic reaction and 1 each for fatigue, pyrexia, laryngeal oedema, respiratory depression and urticaria). 4 patients (8%) discontinued naxitamab due to naxitamab-related AEs. No AEs were fatal. Anti-drug antibody formation was observed in 10/46 (22%) patients assessed.

Conclusions

Naxitamab provided a clinically meaningful response in patients with R/R HR NB with bone and/or BM disease only, with a manageable safety profile in the outpatient setting addressing a significant unmet medical need.

Clinical trial identification

NCT03363373.

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