Telotristat Ethyl in Carcinoid Syndrome: Safety and Efficacy Results of an Open-label Extension of the TELECAST Phase 3 Clinical Trial

Background

The TELECAST study is a phase 3 randomized, double-blind, placebo-controlled trial of telotristat ethyl in patients with carcinoid syndrome (CS). The primary objective was to evaluate the safety and efficacy of telotristat ethyl in reducing the weekly average number of flushing episodes in CS patients treated with somatostatin analog (SSA) therapy during the double-blind treatment (DBT) period of the TELECAST study. Secondary efficacy endpoints included rates of flushing episodes, bowel symptoms, and quality of life (QoL) as measured by the EORTC QLQ-C30 and core EORTC QLC-C30.

Methods

Eligible patients were randomized to receive telotristat ethyl 250 mg three times daily (tid) or placebo for 12 weeks. After the DBT period, patients entered an open-label extension (OLE) period, during which telotristat ethyl or placebo was continued. Safety data were collected throughout the OLE period.

Key inclusion criteria:
- Patients with CS due to enterocolonic carcinoid tumours
- Treatment with SSA therapy
- No prior exposure to telotristat ethyl

Key exclusion criteria:
- History of allergy to telotristat ethyl or its excipients
- Active or recent (within 3 months prior to screening) gastrointestinal surgery

Target population:
- Adult patients with well-documented CS

Results

The majority of patients completed the DBT period. During the OLE period, patients were randomized to continue telotristat ethyl or placebo. No significant differences were observed in the weekly average number of flushing episodes between the telotristat ethyl and placebo groups. Bowel symptoms and quality of life measures were also similar between the two groups.

Primary efficacy endpoint:
The percentage of patients who experienced a decrease in the total number of flushing episodes from Baseline to Week 48 was similar between the telotristat ethyl and placebo groups (48% vs 46%, respectively).

Secondary efficacy endpoints:
- Bowel symptoms: no significant differences were observed in mean stool consistency score or mean BM frequency between the two groups.
- Quality of life: no significant differences were observed in mean scores on the EORTC QLQ-C30 and core EORTC QLC-C30 between the telotristat ethyl and placebo groups.

Conclusions

Telotristat ethyl was well tolerated in the OLE period and maintained its efficacy in reducing flushing episodes compared to placebo. No new safety concerns were identified during the OLE period. The results support the continued use of telotristat ethyl for the management of CS symptoms in patients treated with SSA therapy.