Weickert, M. O., Kaltsas, G., Hörsch, D., Lapuerta, P., Pavel, M., Valle, J. W., & Grande, E. (2018). Changes in Weight Associated With Telotristat Ethyl in the Treatment of Carcinoid Syndrome

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Abstract

PURPOSE:

In the placebo-controlled Phase III TELESTAR (Telotristat Etiprate for Somatostatin Analogue Not Adequately Controlled Carcinoid Syndrome) trial, the oral tryptophan hydroxylase inhibitor telotristatethyl significantly reduced bowel movement (BM) frequency during a 12-week, double-blind treatment period in 135 patients with metastatic neuroendocrine tumors with carcinoid syndrome and ≥4 BMs per day. Patients (mean [SD] age, 63.5 [8.9] years; mean [SD] body mass index, 24.9 [4.9] kg/m^2) received placebo, telotristat ethyl 250 mg, or telotristat ethyl 500 mg 3 times per day (TID) in addition to somatostatin analogue therapy. Weight loss is associated with uncontrolled carcinoid syndrome and may be associated with reduced survival.

METHODS:

Assessment of the occurrence of weight change ≥3% at week 12 was prespecified in the statistical analysis plan.

FINDINGS:

In 120 patients with weight data available, weight gain ≥3% was observed in 2 of 39 patients (5.1%) taking placebo TID, 7 of 41 (17.1%) taking telotristat ethyl 250 mg TID, and 13 of 40 (32.5%) taking telotristat ethyl 500 mg TID (P = 0.0017) at week 12. Weight loss ≥3% was observed in 5 of 39 patients (12.8%) taking placebo TID, 4 of 41 (9.8%) taking telotristat ethyl 250 mg TID, and 6 of 40 (15.0%) taking telotristat ethyl 500 mg TID (P = 0.77). Biochemical and metabolic parameters of serum albumin and cholesterol significantly increased (P = 0.02 and P = 0.001, respectively) in patients gaining weight and decreased in patients who lost weight, suggesting an improvement in overall nutritional status.

IMPLICATIONS:

Up to 32.5% of patients treated with telotristat ethyl experienced significant, dose-dependent weight gain, associated with reduced diarrhea severity and improved biochemical and metabolic parameters. Improved nutritional status could be an additional aspect of telotristat ethyl efficacy among patients with functioning metastatic neuroendocrine tumors. ClinicalTrials.gov identifier: NCT01677910.

https://www.clinicaltherapeutics.com/article/S0149-2918(18)30148-6/fulltext