The aim of the T3MPO-3 study was to evaluate the long-term safety of tenapanor. Tenapanor is a locally acting, minimally absorbed, selective small-molecule inhibitor of intestinal sodium/hydrogen exchanger 3 (NHE3) that increases luminal sodium in exchange for cellular protons. 

**Background**

- Tenapanor is a locally acting, minimally absorbed, selective small-molecule inhibitor of intestinal sodium/hydrogen exchanger 3 (NHE3) that increases luminal sodium in exchange for cellular protons.
- Increased luminal sodium results in increased luminal water, loosening luminal sodium in exchange for cellular protons.
- TRPV1 signaling and by decreasing intestinal cell permeability.

**Methods**

- The open-label safety study T3MPO-3 (NCT02727751) was conducted in accordance with the Declaration of Helsinki at 51 sites in the USA, with all participants providing written informed consent.
- Patients who completed either the T3MPO-1 study or the T3MPO-2 study were eligible for enrollment. In addition to an IBS-C diagnosis (modified Rome III criteria), the main eligibility criteria for these studies during the 2-week screening period were the following:
  - mean stool frequency of fewer than three complete spontaneous bowel movements and five or fewer spontaneous bowel movements per week
  - mean stool consistency of 3 or below using the 7-point Bristol Stool Form Scale
  - mean weekly abdominal pain score of at least 3 (assessed daily using a 10-point Likert scale: 0 = none to 10 = severe; mean weekly score was calculated from scores for all days during a valid week).
- All participants received tenapanor 50 mg b.i.d., for either 39 weeks (T3MPO-1 cohort) or 26 weeks (T3MPO-2 cohort).
- Patients enrolled from T3MPO-1 were divided into three cohorts for T3MPO-3.

**Results**

- A total of 240 patients from T3MPO-1 and T3MPO-2 were enrolled in the T3MPO-3 overall enrollment (T3MPO-3 overall completion, n = 202).

**Conclusions**

- Overall, no notable changes from baseline were observed in serum chemistry, hematology, urinalysis, vital signs or physical examination outcomes.
- There were no clinically significant abnormal ECG findings during the study, and no notable changes from baseline in QT interval, including when corrected using Bazett’s or Fridericia’s formulae.

**References**