EP-710 Patient-Reported Outcomes Comparing Octreotide Capsules to Somatostatin Analog Injections: Results From a Multicenter, Baseline-Controlled, Phase 3 Study in Acromegaly

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*Potential conflict of interest may exist.

ABSTRACT

Background: Somatostatin analogs are the most widely used medical treatment in acromegaly. Available long-acting formulations are administered parenterally (intramuscular or deep subcutaneous injections). Results of a multicenter, baseline-controlled, Phase 3 study showed that a new investigational oral agent, octreotide capsules, are an effective and safe treatment in acromegaly. The Treatment Satisfaction Questionnaire for Medication (TSQM), assessed in the phase 3 study as an exploratory endpoint, compared Patient Reported Outcomes (PRO) in responders to injections versus responders to octreotide capsules.

Methods: TSQM, a validated PRO measure, consists of 14 multiple-choice items encompassing 4 domains: Effectiveness, Side Effects, Convenience, and Overall Satisfaction. Additional supplemental items were developed specifically for this study and relate to wear-off effects/breakthrough symptoms and direct comparison of the overall satisfaction with octreotide capsules versus injections. The results herein include a cohort of 85 patients (of 155 enrolled) who were controlled on oral and continued treatment with octreotide capsules for up to 13 months.

Results: A higher percentage of patients taking octreotide capsules reported improvement rather than deterioration in Effectiveness, Side Effects, Convenience, and Overall Satisfaction (improvement in 41, 38, 48, and 39%, respectively, vs deterioration in 28, 13, 39, and 29%), while others maintained their scores. The improved Effectiveness score supported the improvement in acromegaly symptoms (AIS score), reported in the phase 3 study. Mean satisfaction with octreotide capsules was higher than with injections, based on the response to the statement, "I am satisfied with this medication compared to others" (5.2 score on a scale of 0-7). This was consistent with 86% of core study completers electing voluntarily to continue into the extension phase.

Conclusions: Patients were more satisfied with octreotide capsules compared with injections. Improvements were noted for oral octreotide in all TSQM scale scores, especially for Effectiveness and Side Effects.

INTRODUCTION

- Acromegaly is a rare and debilitating disorder characterized by excessive growth hormone (GH) secretion, usually due to a benign pituitary adenoma.
- Somatostatin receptor ligands (SRLs) (octreotide [Sandostatin®]) and lanreotide [Somatuline®]), the most widely used medical treatments for acromegaly, are currently available as long-acting formulations that must be administered parenterally by intramuscular or deep subcutaneous injections.
- In a multicenter, single-arm, baseline-controlled phase 3 study in acromegaly patients (n=155) previously treated with injectable SRLs, the efficacy of octreotide capsules in controlling and maintaining GH and insulin-like growth factor 1 levels was demonstrated in 65% of modified-intent-to-treat patients for up to 7 months and in 62% of patients for up to 13 months.[1]
- Treatment with octreotide capsules was associated with a significant reduction in the incidence and severity of acromegaly symptoms as measured by the Acromegaly Index of Severity (AIS) score compared with SRL therapy.[1]
- The Treatment Satisfaction Questionnaire for Medication (TSQM), a validated Patient Reported Outcomes measure, was an exploratory endpoint in the phase 3 study.

OBJECTIVE

- To evaluate treatment satisfaction among patients participating in the phase 3 trial, using the TSQM and supplemental items developed specifically for the study.

METHODS

Study Design

- Patients with acromegaly who were responsive to and receiving a stable dose of a parenteral SRL therapy for at least 3 months prior to screening switched to octreotide capsules.[1]
- The octreotide capsules treatment period lasted ≥13 months and was comprised of a dose escalation phase (2-5 months) followed by a fixed-dose phase (8-11 months). Patients completing 7 months of treatment could voluntarily choose to enter a 6-month extension phase.[1]

TSQM and Other Assessments of Treatment Satisfaction

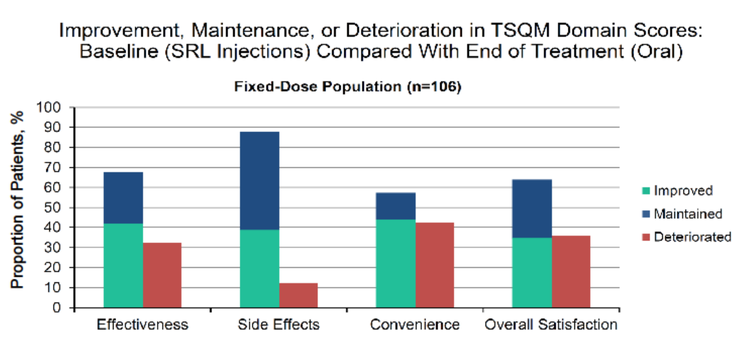
- Patients were asked to complete the TSQM and 5 supplemental items developed specifically for this study
- The TSQM includes 14 multiple-choice items developed to be self-administered by individuals with a variety of chronic conditions.[2] The questionnaire provides 4 scale scores including: Effectiveness, Side Effects, Convenience, and Overall Satisfaction. The scores range from 0 to 100, with higher scores representing greater satisfaction.
- The 5 supplemental items assess recurrence of symptoms, bothersomeness of symptoms, medication complications, bothersomeness of medication complications, and overall satisfaction compared with other medications.
- Patients completed the TSQM and supplemental items at baseline when all patients were treated with SRL injections. To assess treatment satisfaction with octreotide capsules, the TSQM and supplemental items were completed 2 months following the first dose and approximately every 2 months thereafter, up to the end of treatment (fixed-dose or extension phase).
- Improvement was defined as an increase of at least 5 points in a specific scale score from Baseline to End of Treatment (EOT). Maintenance was defined as any change (±) up to 5 points, and deterioration defined as a decrease of at least 5 points in a specific scale score from Baseline to EOT.

RESULTS

TSQM Scale Scores

- 155 patients (57% female) were enrolled in the phase 3 study. Of all patients, 81% had at least 1 active acromegaly symptom upon entering the study, despite receiving treatment with SRLs.
- 140 patients completed the TSQM at Baseline (on injectable SRL) and at least one additional post-Baseline assessment during treatment with octreotide capsules. Of these, 106 entered the Fixed Dose Phase (TSQM-FD) and 85 patients elected to continue into the Extension phase of the study (TSQM-EXT).
- As the supplemental questions were added after study initiation, 48 patients completed the supplemental questions at both Baseline and post-Baseline. 36 of these entered the Fixed Dose and 28 the Extension Phase.
- As the TSQM-FD and the EXT-ITT Populations represent the target populations for chronic treatment with octreotide capsules, their results are presented herein.
- In the TSQM-FD Population, more patients reported improvement (41.9%) in the Effectiveness scale than a deterioration (32.4%). More patients reported an improvement (38.7%) in Side Effects than a deterioration (12.3%), and slightly more patients reported an improvement (44.3%) in Convenience than a deterioration (42.5%) **(Figure 1)**.

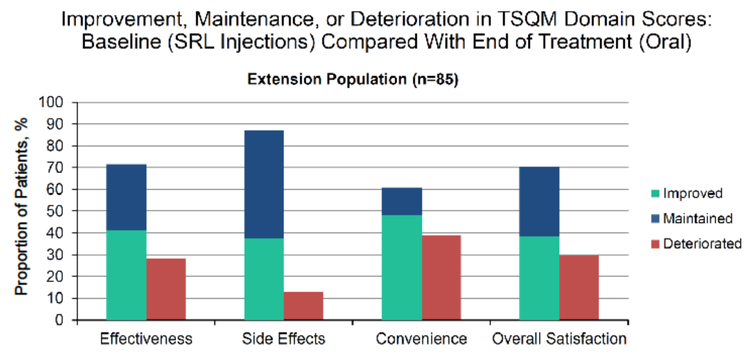
Figure 1. Improvement, Maintenance and Deterioration in TSQM Scale Scores: Fixed-Dose Population (Up to 13 Months Treatment)*



*Improvement defined as at least 5 points increase and deterioration as at least 5 points decrease in the relevant domain score.

- In the TSQM modified EXT-ITT Population, more patients reported improvement (41.2%) in the Effectiveness domain than a deterioration (28.2%). More patients reported an improvement (37.6%) in Side effects than a deterioration (12.9%), and more patients reported an improvement (48.2%) in Convenience than a deterioration (38.8%) **(Figure 2)**.

Figure 2. Improvement, Maintenance and Deterioration in TSQM Scale Scores: Extension Population (Up to 13 Months Treatment)*



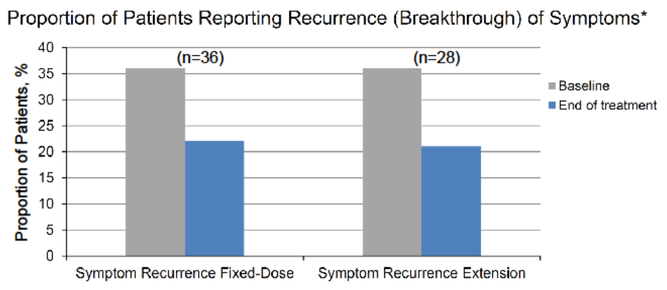
*Improvement defined as at least 5 points increase and deterioration as at least 5 points decrease in the relevant domain score.

- Improved Effectiveness scores (increase in scores) in the fixed-dose and extension populations were consistent with the findings of significantly decreased incidence and severity of acromegaly symptoms (as measured by the AIS symptoms score), among patients who received octreotide capsules compared with SRL therapy in the phase 3 study.[1]
- Improvements in the Side Effects score for the octreotide capsule group compared with the SRL therapy group likely reflect the absence of injection-site reactions, which are not associated with oral treatment.

Breakthrough Symptoms and Overall Satisfaction

- Two supplemental items that were included as part of the TSQM assessed wear-off effects/occurrence of breakthrough symptoms and Overall Satisfaction with medication as compared to their previous treatment.
- Among patients who entered the fixed-dose and extension phases, a smaller proportion reported breakthrough symptoms with octreotide capsules compared with injectable SRLs [22% (TSQM-FD), 21% (TSQM-EXT) vs 36% (Injections)] **(Figure 3)**.
- When directly asked about the overall satisfaction of octreotide capsule therapy compared with previously administered injectable SRLs, the mean score was 5.2 (range 0-7), reflecting the response "I am satisfied with this medication compared with others."
- This finding is consistent with results from the phase 3 trial, in which 86% of patients completing the fixed-dose phase of the study voluntarily chose to enroll in the extension phase and receive octreotide capsules for an additional 6 months.[1]

Figure 3. Reduction in Breakthrough Symptoms With Octreotide Capsules Compared With Injectable SRL



*Patients completing baseline (SRL injections) and end of treatment (oral) assessments.

CONCLUSIONS

- Patients receiving octreotide capsules for acromegaly were more satisfied with their treatment compared with SRL injections.
- Improvements were reported in all TSQM scale scores, especially in the Effectiveness and Side Effects domains.
- Octreotide capsule use was also associated with a reduction in the incidence of breakthrough symptoms.
- These findings are consistent with those of the phase 3 study in which the majority of patients (86%) receiving up to 7 months of treatment elected to enter the extension phase of the study.

References

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2. Atkinson MJ, Sinha A, Haas SL, et al. Validation of a general measure of treatment satisfaction, the Treatment Satisfaction Questionnaire for Medication (TSQM), using a national panel study of chronic disease. *Health Qual Life Outcomes*. 2004;2:12.

Disclosures

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