

COMPARISON OF SOLIFENACIN 5 MG AND TOLTERODINE ER 4 MG IN THE STAR OAB STUDY

Hypothesis / aims of study

The aim of the study was to conduct a head-to-head comparison as per approved labelling of solifenacin (flexible dosing of 5 or 10 mg) and tolterodine ER (4 mg) for the treatment of symptoms of overactive bladder (OAB). Regardless of availability all patients were given the opportunity to request a dose increase. Results for patients prior to that decision point and patients who indicated a preference to remain on starting dose are presented and thus compares solifenacin 5 mg and tolterodine ER 4 mg.

Study design, materials and methods

The design was prospective, double blind, double-dummy, 2-arm, and parallel-group, with a 12-week active treatment period. The study was subject to Ethics Committee approval. OAB patients entered a single-blind placebo-controlled period of 2 weeks and were then randomised to a double-blind active treatment (solifenacin 5 mg or tolterodine ER 4 mg) period of 4 weeks at which point the patients had the option of either continuing on the original dose or requesting a dose increase; all patients remained on the same double-blind, double-dummied medication throughout but only solifenacin patients received an actual dose increase as per approved labelling. Randomised treatment group comparisons were made by ANCOVA and results for self-selecting (non-randomised) subgroups by descriptive statistics.

Results

The ITT population consisted of 578 patients on solifenacin and 599 on tolterodine ER; demographics and baseline values were similar. As early as 4 weeks greater treatment effects were experienced by patients randomised to solifenacin 5 mg than to tolterodine ER 4 mg with regard to the primary variable of micturition frequency (-1.71 vs. -1.47), and secondary variables of volume voided (28.51 ml vs. 24.29 ml), urgency (-1.98 vs. -1.67), urge incontinence (-1.22 vs. -0.91), % patients dry (39.2% vs. 34.3%), nocturia (-0.51 vs. -0.44), and PBC patient perception of bladder condition (-0.96 vs. -0.88). Statistical significance was reached for mean reduction in incontinence episode/24 hrs of -1.30 vs. -0.90 (p=0.0181) with an associated significant reduction in pad use (reduced by -1.21 vs. -0.80; p=0.0089). During this period for solifenacin 5 mg and tolterodine ER 4 mg groups respectively 18.2% vs. 14.5% reported dry mouth, 3.0% vs. 1.2% reported constipation and 0.2% vs. 1.5% reported blurred vision; discontinuations were low in both groups. After 4 weeks treatment 52% of solifenacin patients and 49% of tolterodine ER patients elected to remain on the starting dose. For these patients at endpoint reduction in micturition episodes/24h were similar (-2.47 vs. -2.49), but the greater improvements in the solifenacin group were maintained for all secondary variables: mean volume voided (39.95 ml vs. 37.84 ml); incontinence/24h (-1.56 vs. -1.23); urge incontinence/24h (-1.46 vs. -1.03); urgency/24h (-3.08 vs. -2.62); nocturia (-0.72 vs. -0.69; pad use/24h (-1.55 vs. -1.40); PBC (-1.72 vs. -1.62). In the safety population (297 and 287 patients respectively) dry mouth and constipation rates were slightly higher in the solifenacin 5 mg group vs. tolterodine ER 4 mg (27.6% vs. 24.0% and 4.0 vs. 2.4%). Incidence of blurred vision was slightly higher in the tolterodine group (2.1% vs. 0.3%). Withdrawals due to Adverse Events were low, albeit slightly higher in the tolterodine group (2.4% vs. 1.3% in self-selecting groups), suggesting good tolerability. The majority of patients reported treatment benefit with more patients reporting the highest treatment benefit rating after solifenacin 5 mg (65%) than after tolterodine ER 4 mg (57.8%).

Interpretation of results

Comparisons at week 4 are statistically robust. Results for the self-selecting groups, though double blind are not randomised and the outcomes would need to be confirmed.

Concluding message

These results suggest that as early as 4 weeks treatment of OAB patients with solifenacin 5 mg may provide greater symptom improvements than tolterodine ER 4 mg, with particular regard to reduction in incontinence episodes and corresponding pad usage. Further they suggest that this advantage may be maintained following 16 weeks treatment.

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CLINICAL TRIAL REGISTRATION: This clinical trial has not yet been registered in a public clinical trials registry.

HUMAN SUBJECTS: This study was approved by the IECS for 17 European countries and followed the Declaration of Helsinki Informed consent was obtained from the patients.