Use of a Positional Therapy Device Significantly Improves Nocturnal Gastroesophageal Reflux Symptoms

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Goals: The aim of this study was to measure efficacy of a positional therapy device (PTD) at reducing proton pump inhibitor (PPI) refractory nocturnal GERD symptoms.

Background: Among patients with GERD, nocturnal symptoms are very common. A recent study demonstrated a decrease in nocturnal acid exposure and reflux episodes in healthy volunteers who slept using a PTD.

Study: This is a single-center prospective trial involving patients on anti-secretory medications with continued nocturnal heartburn and regurgitation. Patients completed the Nocturnal GERD Symptom Severity and Impact Questionnaire (N-GSSIQ) and GERD health related quality of life questionnaire (GERD-HRQL) at enrollment. Patients were instructed to sleep on the PTD for at least 6 hours a night during the two week study period; subjects continued their baseline anti-secretory medication dose. After 2 weeks, the questionnaires were repeated.

Results: A total of 27 patients (16 female and 11 male; age 57.8±15.1) were recruited. N-GSSIQ scores significantly improved over baseline after 2 weeks of PTD use, with a mean total score improvement of 39.5 (mean 57.7 [pre] vs. 18.2 [post], $p < 0.001$). Significant improvement from baseline was also observed for the GERD-HRQL questionnaire (29.8 vs. 16.7, $p < 0.001$). No adverse events were reported. At 3 months after the trial period, 91% of the subjects continued to use the PTD on a nightly basis.

Conclusions: Use of the PTD significantly decreased nocturnal GERD symptoms and improved GERD health-related quality of life. The PTD was well tolerated during the study period and for 3 months after enrollment.
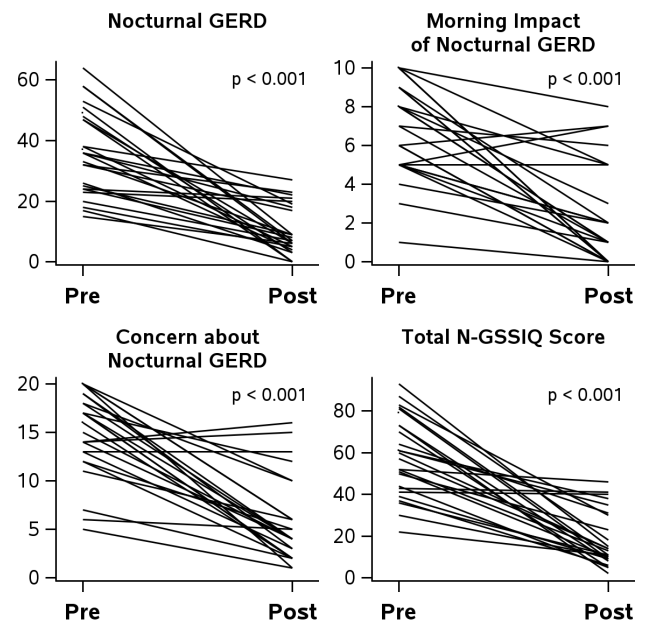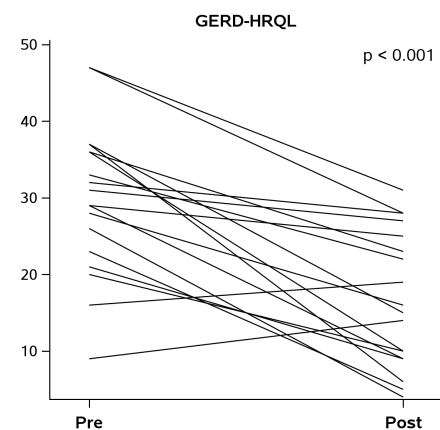

Figure 1. Individual N-GSSIQ Response

Figure 2. Individual GERD-HRQL Response