

## Transoral Incisionless Fundoplication in a Treatment of Refractory GERD: a Retrospective Experience at a Large Quaternary Care Center

Michal Kloska MD

Lehigh Valley Health Network, Michal.Kloska@lvhn.org

Abdul Aleem MD

Lehigh Valley Health Network, Abdul.Aleem@lvhn.org

Valery Hrad MD

Lehigh Valley Health Network, Valery.Hrad@lvhn.org

Hiral N. Shah MD

Lehigh Valley Health Network, hiral\_n.shah@lvhn.org

Scott Beman MD

Lehigh Valley Health Network, Scott.Beman@lvhn.org

*See next page for additional authors*

Follow this and additional works at: <https://scholarlyworks.lvhn.org/medicine>



Part of the [Gastroenterology Commons](#)

---

### Published In/Presented At

Kloska, M., Aleem, A., Hrad, V., Shah, H., Beman, S., & Shah, S. (2020, October). *Transoral Incisionless Fundoplication in a Treatment of Refractory GERD: a Retrospective Experience at a Large Quaternary Care Center*. Poster presented at: ACG Annual Scientific Meeting, Virtual.

This Poster is brought to you for free and open access by LVHN Scholarly Works. It has been accepted for inclusion in LVHN Scholarly Works by an authorized administrator. For more information, please contact [LibraryServices@lvhn.org](mailto:LibraryServices@lvhn.org).

---

**Authors**

Michal Kloska MD, Abdul Aleem MD, Valery Hrad MD, Hiral N. Shah MD, Scott Beman MD, and Shashin Shah MD

# Transoral Incisionless Fundoplication in a Treatment of Refractory GERD: a Retrospective Experience at a Large Quaternary Care Center

Michal Kloska, MD, PhD,<sup>1</sup> Abdul Aleem, MD,<sup>2</sup> Valery Hrad, MD,<sup>2</sup> Hiral N. Shah, MD,<sup>2</sup> Scott W. Beman, MD,<sup>3</sup> Shashin Shah, MD<sup>2</sup>

<sup>1</sup>Department of Medicine, <sup>2</sup>Department of Gastroenterology, <sup>3</sup>Department of General, Bariatric, and Trauma Surgery, Lehigh Valley Health Network, Allentown, Pa.

## INTRODUCTION

- Gastroesophageal Reflux Disease (GERD) is one of the most common gastrointestinal diseases resulting in the backwash of gastric acid into the esophageal lumen.
- Proton pump inhibitors (PPI) are the mainstay of treatment of GERD; however, nearly 1/3 of patients have a suboptimal response to PPI therapy.
- Patients refractory to PPI therapy are appropriate candidates for invasive interventions such as transoral incisionless fundoplication (TIF), which is gaining popularity as a minimally invasive, effective, and safe treatment option in GERD.

## METHODS

- IRB approved retrospective chart review of TIF procedures performed at a large care center with the primary objective of evaluating procedural data that includes technical and clinical success rates. Adverse events related to the procedure were also evaluated.
- Clinical success rate was measured by a reduction in PPI or H2 Blockers (H2B) use, and evaluation of symptom resolution quantified by GERD health-related quality of life (HQRL) questionnaire.

## RESULTS

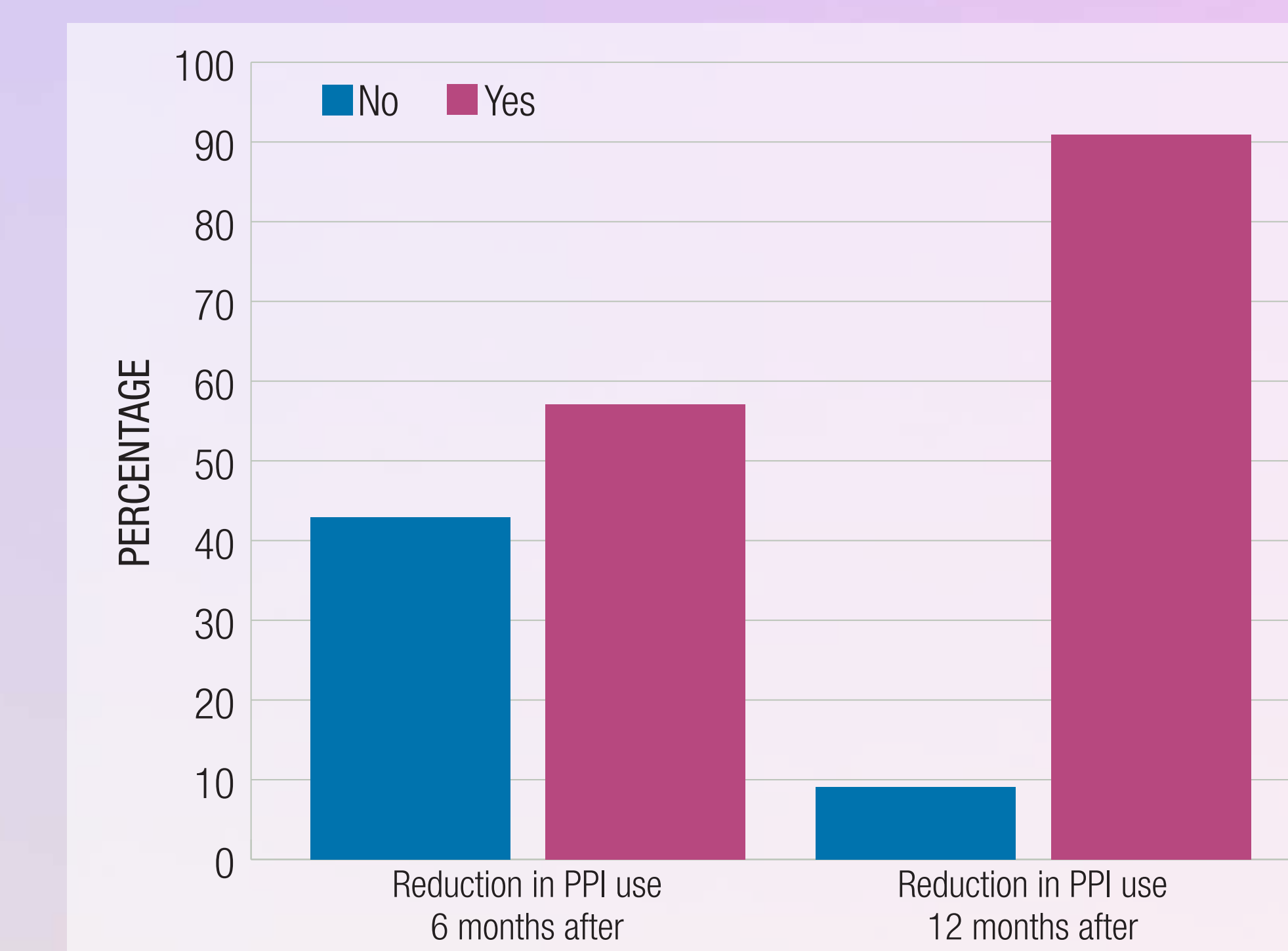
- 18 patients underwent TIF (38.9%) or TIF with hiatal hernia repair (TIF+HHR, 61.1%).
- Technical success rate was 94.4% (TIF device was unable to be inserted even after esophageal dilation in one patient).

- After 12 months, 72.7% of patients who used PPI prior to TIF/HHR stopped using it completely, 18.2% reduced the dose by at least 50%, and only 9.1% were unable to titrate the PPI down. Similar results were shown with H2B use as 66.7% admitted stopping it entirely, and 33.3% were not able to reduce to dose.
- Mean value of the GERD HRQL score was 25.13 prior to the procedure and decreased significantly within 6 and 12 months after TIF/HHR (mean values 6.15 and 3.27, respectively).
- 84.6% stated that they are satisfied with their condition 6 months after the procedure, and 81.8% admitted being satisfied after a year, with the other 9.1% preferring to remain neutral regarding their symptoms.
- Adverse events occurred in two patients and were limited to mild self-resolving bleeding and superficial mucosal tear after esophageal dilation, which did not require any further intervention.

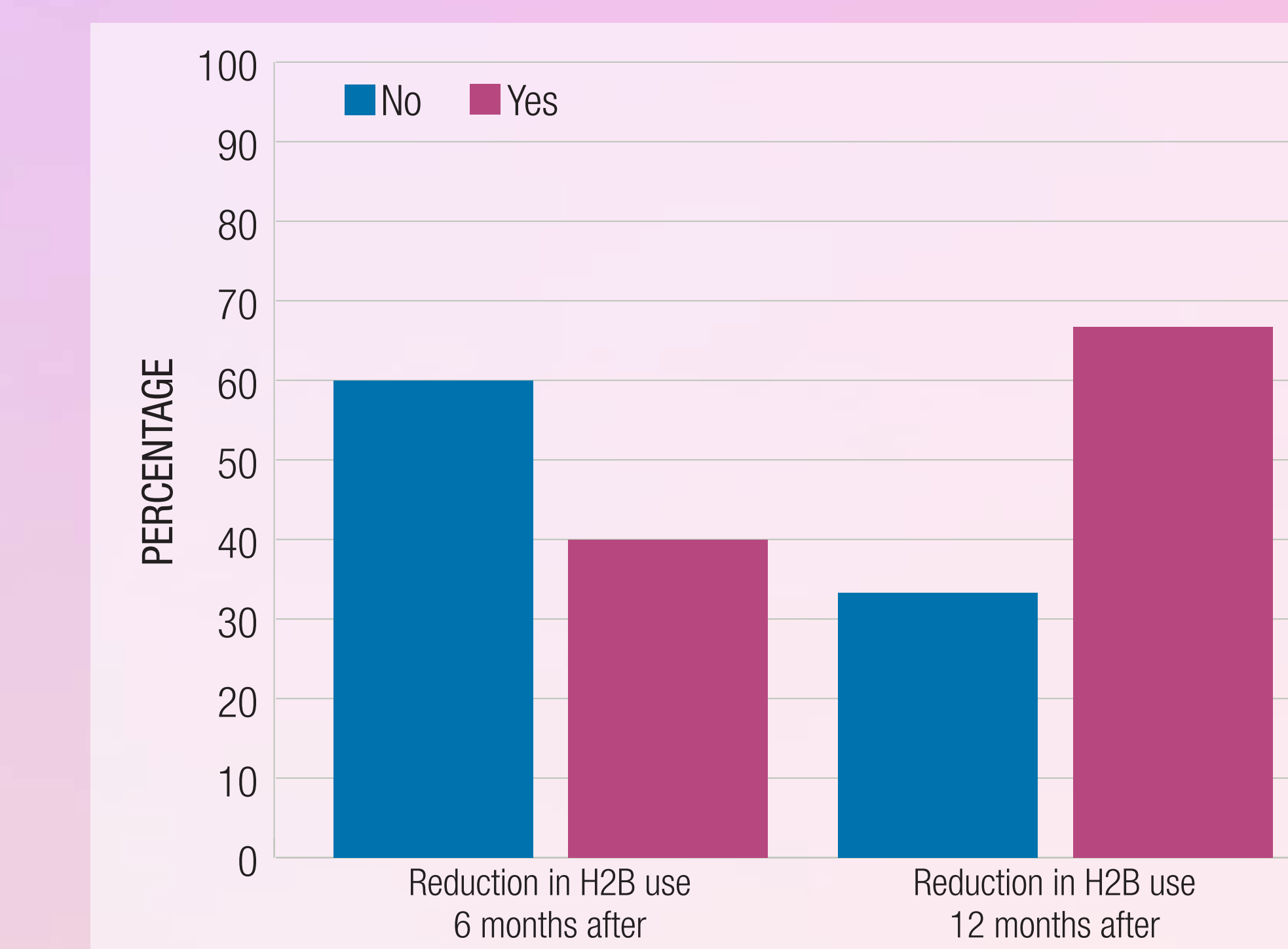
## CONCLUSION

- Above data from our single-center retrospective study clearly demonstrates TIF as a safe and effective treatment option for refractory GERD with a high technical success rate of 94.4% and devoid of any major complications.
- Majority of the patients who underwent the procedure were able to stop taking their prescribed medications for GERD and reported significant or complete resolution of their symptoms.

Reduction in PPI use 6 and 12 months after TIF/HHR

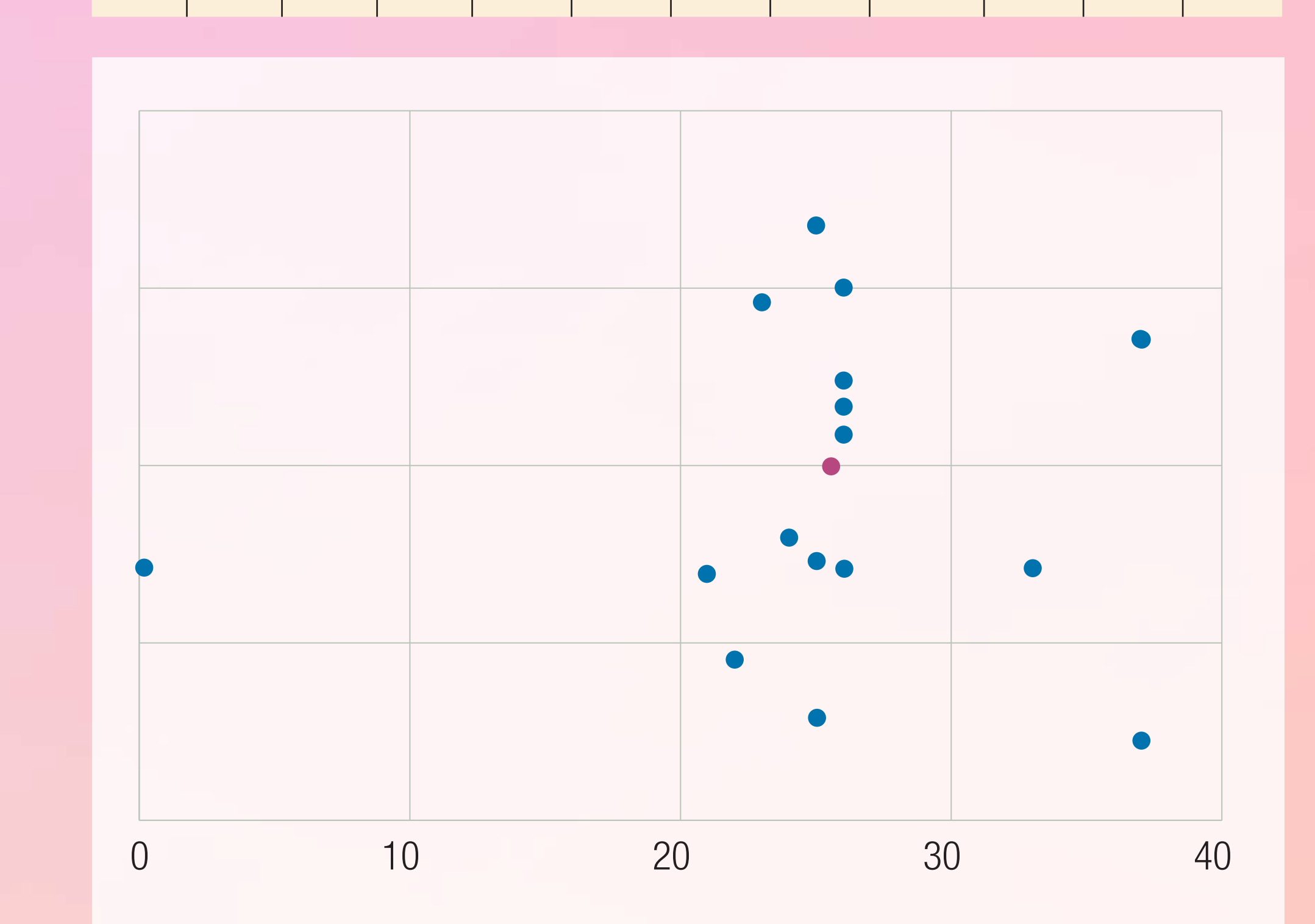


Reduction in H2B use 6 and 12 months after TIF/HHR

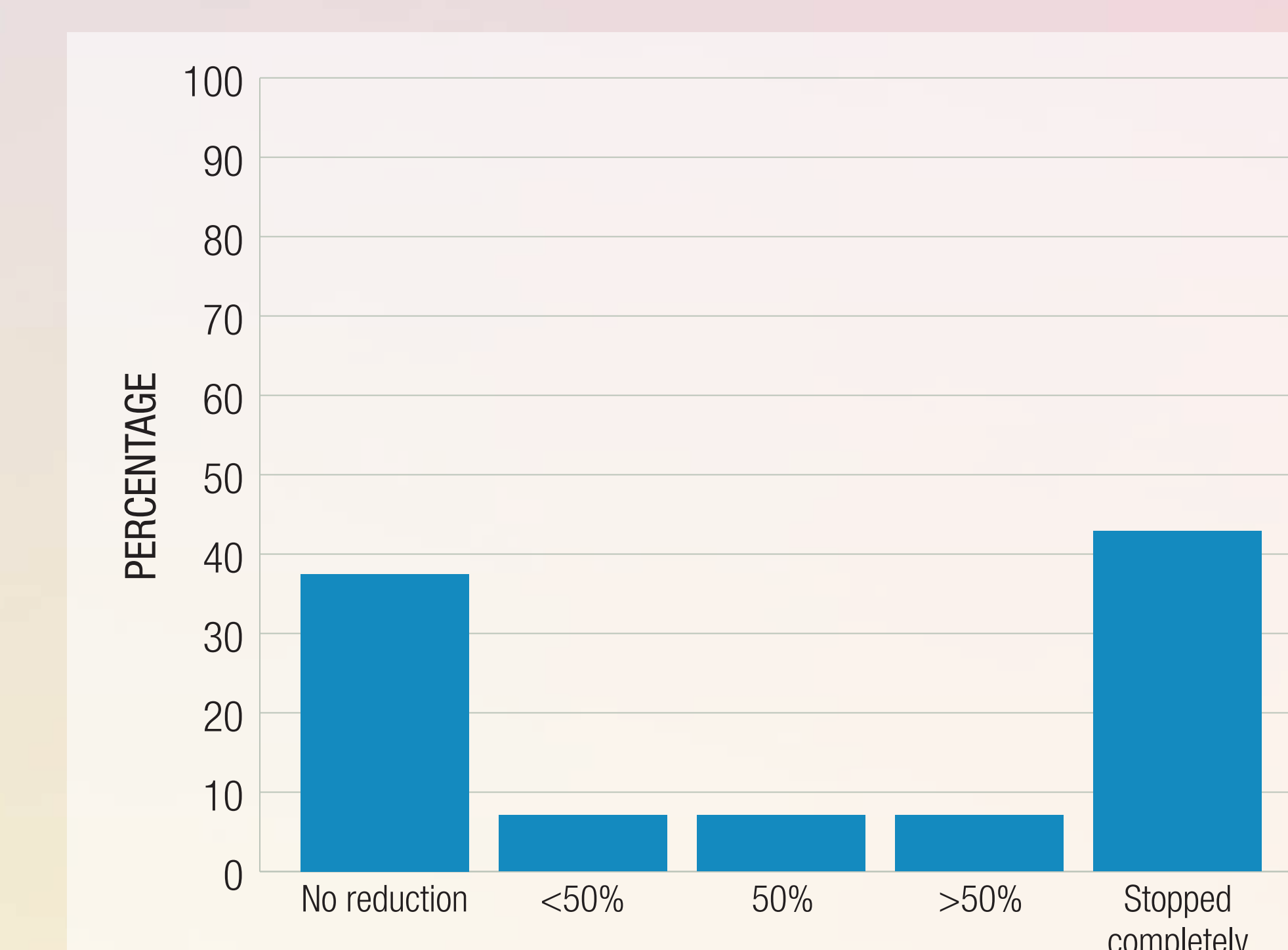


GERD HRQL total points prior to TIF/HHR

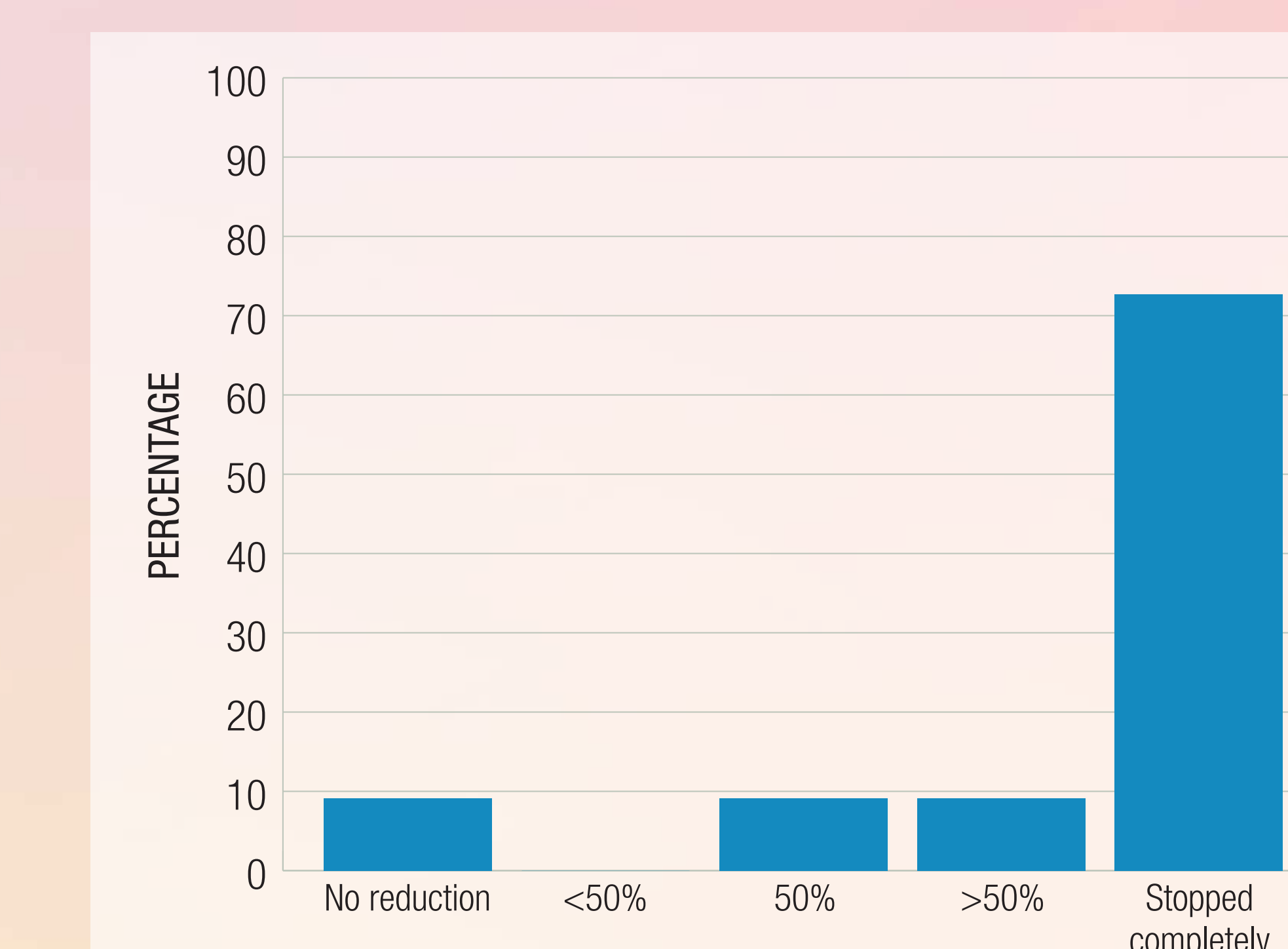
Min	Max	Mean	StDev	Sum	Percentile								
					0.05	0.10	0.25	0.50 Median	0.75	0.90	.095		
0.00	37.0	25.13	8.21	402.00	15.75	21.50	23.75	25.50	26.00	35.00	37.00		



Reduction in PPI use 6 months after TIF/HHR

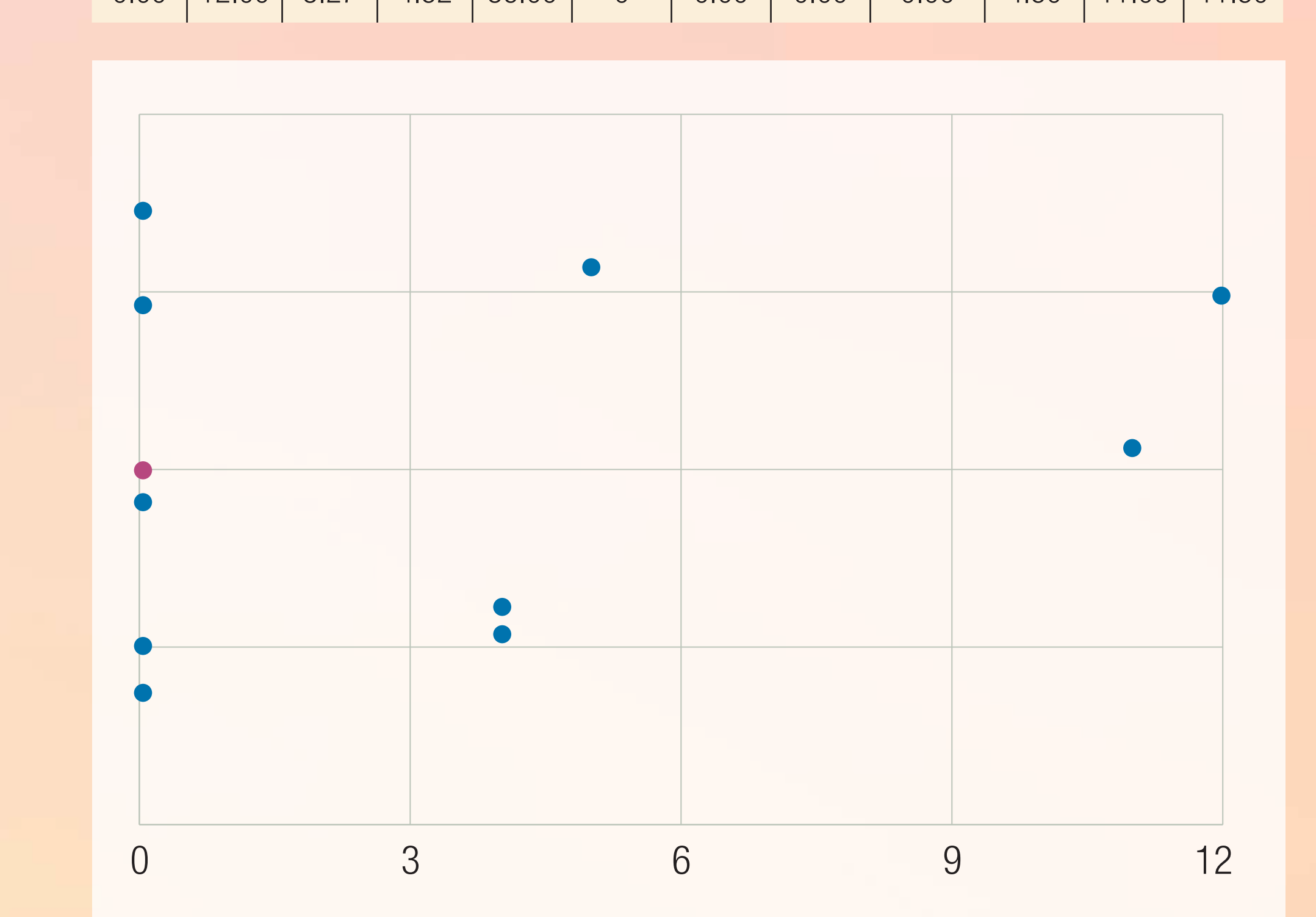


Reduction in PPI use 12 months after TIF/HHR

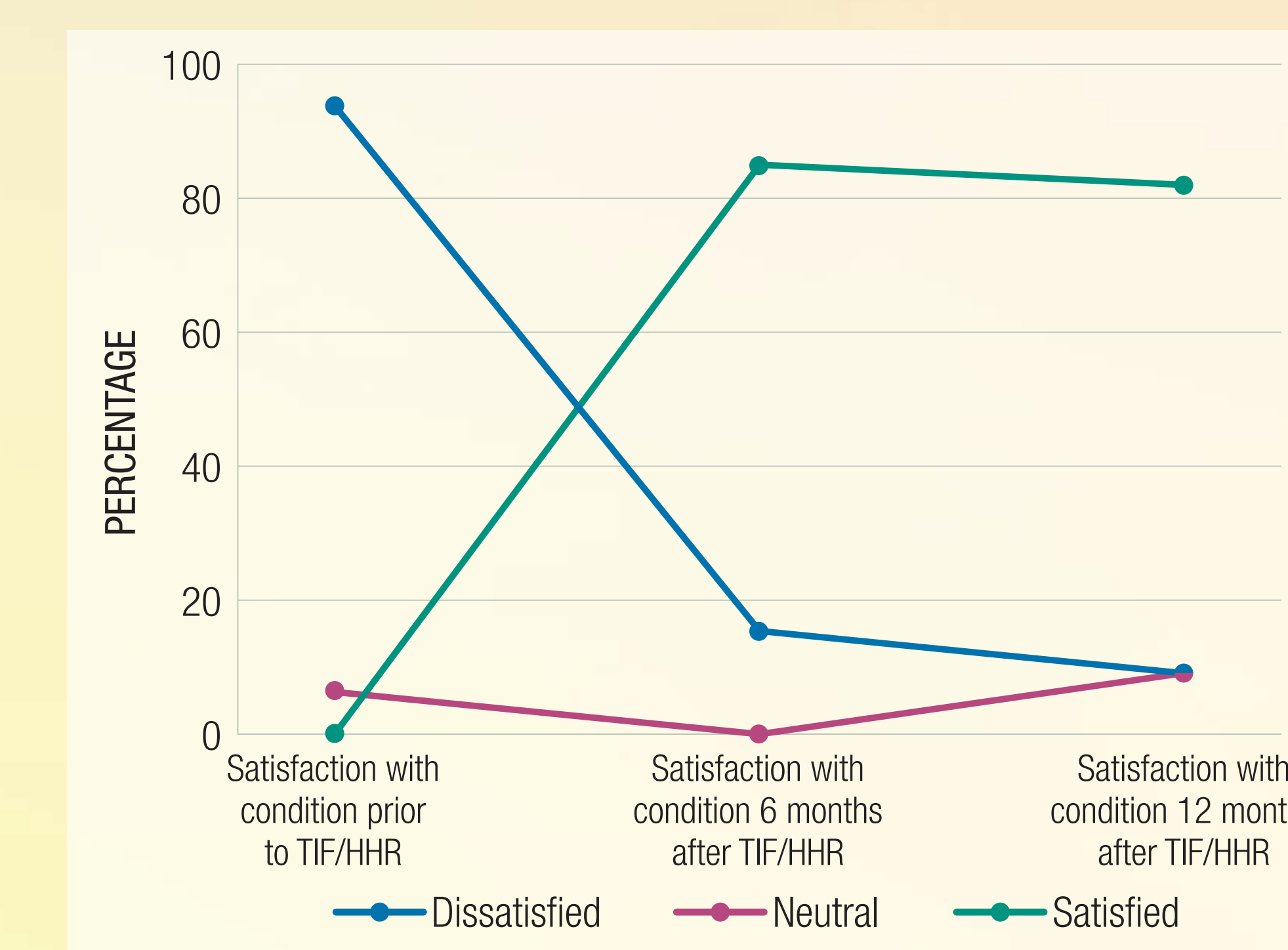


GERD HRQL total points 12 months after TIF/HHR

Min	Max	Mean	StDev	Sum	Percentile								
					0.05	0.10	0.25	0.50 Median	0.75	0.90	.095		
0.00	12.00	3.27	4.52	36.00	0	0.00	0.00	0.00	4.50	11.00	11.50		



Patient's satisfaction with the condition before and after TIF/HHR



Mean value of GERD HRQL total points and Heartburn score before and after TIF/HHR

