

# Septoplasty Outcomes in Patients With and Without Allergic Rhinitis



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## Introduction

- Allergic rhinitis (AR) is an extremely common disease process affecting approximately 20-30 percent of the population<sup>1</sup>
- It is well documented that septoplasty improves quality of life in patients with nasal obstruction<sup>2</sup>
- There is little research however examining the outcomes of septoplasty specifically in patients with co-existing AR as compared to the non-AR population

## Objectives

- To examine nasal obstruction and quality of life outcomes of primary septoplasty in patients with AR as compared to those without AR at 3 and 6 months post-operatively
- To examine patient satisfaction with their post-operative outcome

## Methods

- Prospective analysis of 51 patients with nasal obstruction and nasal septal deviation
- AR defined by 2008 ARIA guidelines<sup>3</sup>
- Patients with prior nasal surgery were excluded from the study
- All patients received both septoplasty and inferior turbinate reduction
- NOSE, mini-Rhinoconjunctivitis Quality of Life Questionnaire (m-RQLQ) a 11 point Ease-of-breathing (EOB) scale, and a 5 point satisfaction scale were used pre-operatively and at 3 and 6 months post-operatively
- Analysis with paired and student t-tests

## Results

- 51 patients enrolled, with 49 (96%) responding at 3 months postop, and 44 (86%) responding at 6 months
- 19 (37%) patients had AR and 32 (63%) patients did not
- 93% of patients were satisfied to very satisfied with their surgical outcomes at 6 months
- There was a clinically and statistically significant improvement between pre and post-operative NOSE, m-RQLQ, and EOB measures for both AR and non-AR patients which was sustained at 3 and 6 months ( $p<0.05$ , see Figures 1,2,3)
- There was no significant difference between NOSE or EOB scores in AR vs. non-AR patients at 3 or 6 months post-operatively ( $p > 0.05$ , see Figures 1 and 3)
- For the m-RQLQ, baseline, 3 and 6 month scores were higher in the AR group compared to non-AR ( $p<0.05$ ). However, the difference in the magnitude of change between the two groups (1.55 for AR vs. 1.44 for non-AR) does not reach clinical significance based on the known minimal clinically important difference (MCID) for the m-RQLQ

## Discussion

- Patients with nasal obstruction from nasal septal deviation demonstrate significant improvement across all measures following septoplasty and inferior turbinate reduction regardless of comorbid AR
- AR patients had higher m-RQLQ scores across all time points. This is expected as this tool measures allergy-specific quality of life. Nonetheless, AR patients received clinical and statistical improvement, and their magnitude of change did not differ in clinical significance when compared to the non-AR group
- Previous studies suggest that AR patients may have attenuated improvement after septoplasty compared to non-AR patients<sup>4</sup>, but these data suggests that both groups receive significant and comparable improvement
- Furthermore, this improvement is sustained 6 months post-operatively

Figure 1: NOSE Response Summary

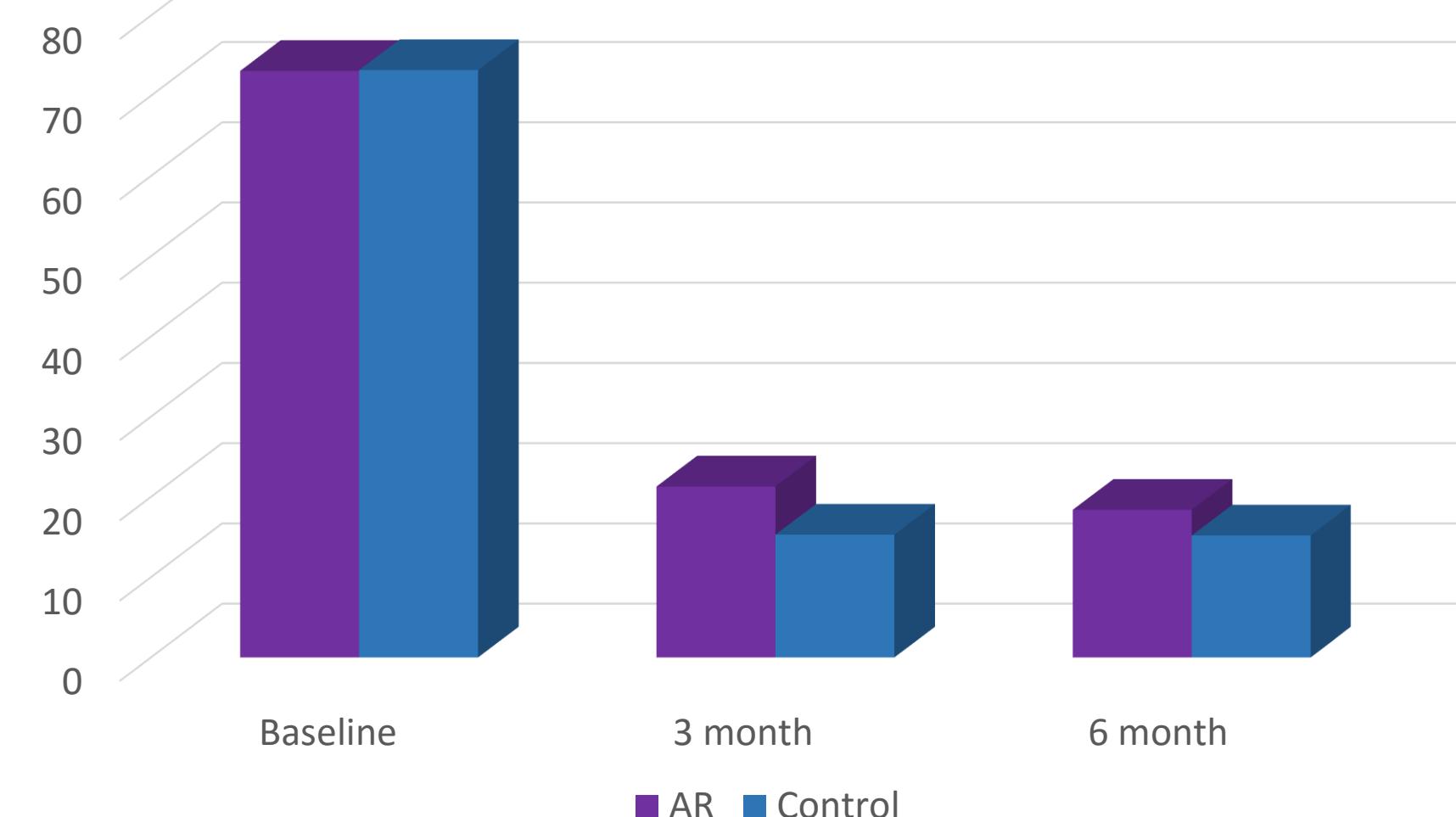


Figure 2: Mini- RLQL Response Summary

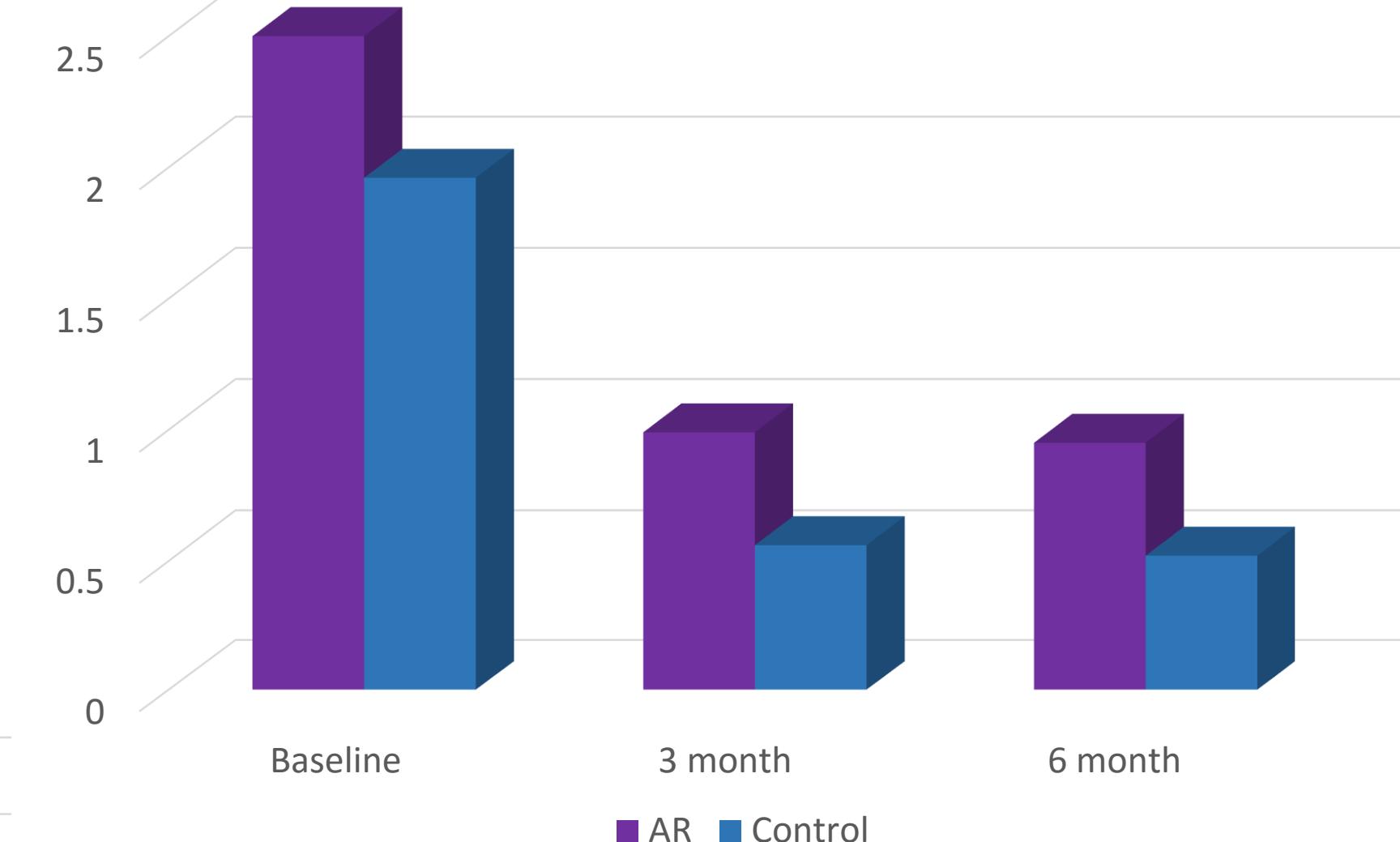
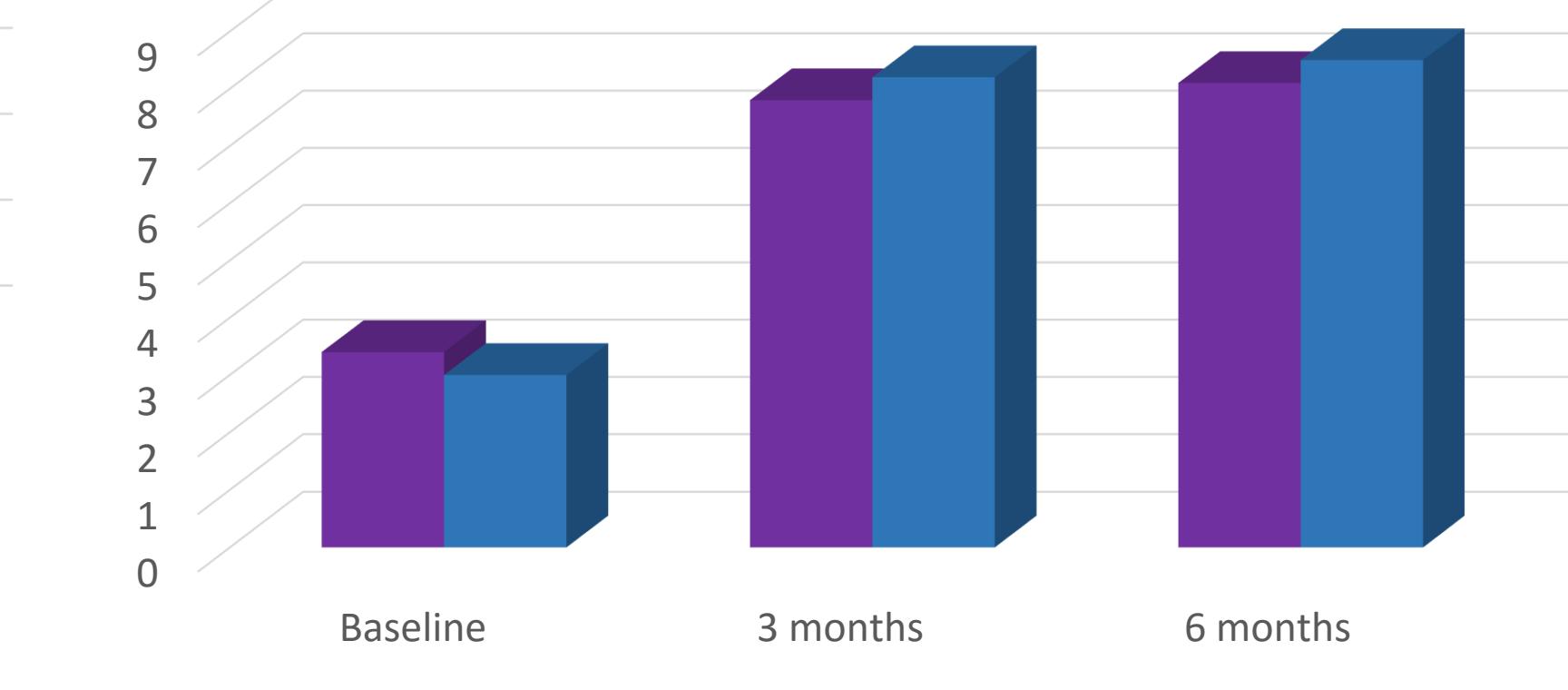


Figure 3: Ease of Breathing Scores



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