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### Role of buteyko breathing technique in asthmatics with nasal symptoms

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Buteyko breathing technique (BBT) practitioners claim that the breathing technique can significantly reduce symptoms of chronic rhinosinusitis. There have been anecdotal reports, suggesting an improvement in the symptoms of chronic rhinosinusitis with BBT.

The aim of the Buteyko method is to correct the patient's breathing pattern. <sup>1</sup> There are a few trials reporting the effectiveness of BBT in asthma. <sup>2</sup>

However, currently, there is no published work looking at the impact of BBT on nasal symptoms of asthmatics. Thus, we report a study that considers the impact of BBT on the nasal symptoms of asthmatics.

The study was performed on 26 volunteers recruited from general population, who had a diagnosis of asthma and chronic rhinosinusitis. Participants underwent training weekly for 3 weeks, each session lasting 150 minutes. Training was performed by a Buteyko practitioner and consisted of teaching of a series of exercises in which subjects reduced the depth and frequency of breathing. Participants were followed for 3 months.

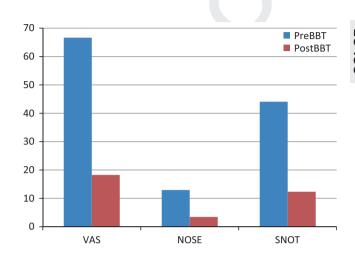
The participants completed validated quality of life questionnaires to rate their nasal symptoms prior to the beginning of training and 3 months after training. These consisted of sinonasal outcome test -22 (SNOT-22)<sup>3</sup>, nasal obstruction symptom evaluation<sup>4</sup> and visual analogue scale.

There were a total of 26 participants. Age ranges from 23–60 years with a mean age of 38 years. Results are illustrated in Table 1 and Fig. 1. We found that those with poor SNOT-22 scores report improvement following BBT. This is likely to be related to chronic rhinosinusitis but cannot say without full otolaryngology assessment.

We showed that there were significant improvements in nasal symptoms of asthmatics and the quality of life of participants. Additional research is needed to establish the

**Table 1.** Pre- and post-test mean scores of visual analogue scale (VAS), nasal obstruction symptom evaluation (NOSE) and sinonasal outcome test (SNOT-22)

	Baseline		3 months		Paired sample t-test
Test	Mean	SD	Mean	SD	P value
VAS	66.65	18.55	18.25	17.70	1.26551E-07
NOSE	12.03	4.19	3.46	2.38	2.67774E-10
SNOT-22	44.07	22.12	12.34	12.56	4.40221E-09



**Fig. 1.** Pre- and Post-test Mean scores of Visual analogue scale (VAS), Nasal obstruction symptom evaluation (NOSE) and Sinonasal outcome test (SNOT-22).

role of this technique in the management of chronic rhinosinusitis.

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