



Role of buteyko breathing technique in asthmatics with nasal symptoms

15 January 2013

Sir,

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.¹ There are a few trials reporting the effectiveness of BBT in asthma.²

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)³, nasal obstruction symptom evaluation⁴ 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

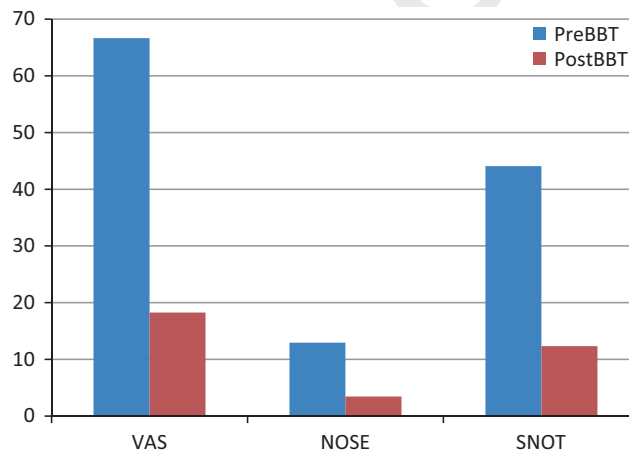


Fig. 1. Pre- and Post-test Mean scores of Visual analogue scale (VAS), Nasal obstruction symptom evaluation (NOSE) and Sinonasal outcome test (SNOT-22).

role of this technique in the management of chronic rhinosinusitis.

Adelola, O.A.* Oosthuizen, J.C.* & Fenton, J.E.*

*Department of Otolaryngology, Head and Neck Surgery, GEMS, University of Limerick & Limerick University Hospital, Limerick, Ireland
E-mail: oadelola@gmail.com

References

- 1 Bruton A. & Lewith G.T. (2005) The Buteyko breathing technique for asthma: a review. *Complement Ther Med.* **13**, 41–46
- 2 Bowler S.D., Green A. & Charles ?? (1998) Buteyko breathing techniques in asthma: a blinded randomised trial. *Med. J. Aust.* **169**, 575–578
- 3 Hopkins C. *et al.* (2009) Psychometric validity of the 22-item Sinonasal Outcome Test. *Clin. Otolaryngol.* **34**, 447–454
- 4 Stewart M.G. *et al.* (2004) Development and validation of the Nasal Obstruction Symptom Evaluation (NOSE) scale. *Otolaryngol. Head Neck Surg.* **130**, 157–163

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

Test	Baseline		3 months		Paired sample t-test P value
	Mean	SD	Mean	SD	
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

Author Query Form

Journal: COA

Article: 12083

Dear Author,

During the copy-editing of your paper, the following queries arose. Please respond to these by marking up your proofs with the necessary changes/additions. Please write your answers on the query sheet if there is insufficient space on the page proofs. Please write clearly and follow the conventions shown on the attached corrections sheet. If returning the proof by fax do not write too close to the paper's edge. Please remember that illegible mark-ups may delay publication.

Many thanks for your assistance.

Query reference	Query	Remarks
1	AUTHOR: Please check that authors and their affiliations are correct.	
2	AUTHOR: If there are fewer than 4 authors for all et al. References, please supply all of their names. If there are 4 or more authors, please supply the first 3 author names then et al. Please check and update all such references found in the list.	
3	AUTHOR: Please supply the initials for Charles in Reference no 2.	

MARKED PROOF

Please correct and return this set

Please use the proof correction marks shown below for all alterations and corrections. If you wish to return your proof by fax you should ensure that all amendments are written clearly in dark ink and are made well within the page margins.

<i>Instruction to printer</i>	<i>Textual mark</i>	<i>Marginal mark</i>
Leave unchanged	... under matter to remain	Ⓟ
Insert in text the matter indicated in the margin	∧	New matter followed by ∧ or ∧ [Ⓢ]
Delete	/ through single character, rule or underline or ┌───┐ through all characters to be deleted	Ⓞ or Ⓞ [Ⓢ]
Substitute character or substitute part of one or more word(s)	/ through letter or ┌───┐ through characters	new character / or new characters /
Change to italics	— under matter to be changed	↙
Change to capitals	≡ under matter to be changed	≡
Change to small capitals	≡ under matter to be changed	≡
Change to bold type	~ under matter to be changed	~
Change to bold italic	≈ under matter to be changed	≈
Change to lower case	Encircle matter to be changed	≡
Change italic to upright type	(As above)	⊕
Change bold to non-bold type	(As above)	⊖
Insert 'superior' character	/ through character or ∧ where required	Y or Y under character e.g. Y or Y
Insert 'inferior' character	(As above)	∧ over character e.g. ∧
Insert full stop	(As above)	⊙
Insert comma	(As above)	,
Insert single quotation marks	(As above)	Y or Y and/or Y or Y
Insert double quotation marks	(As above)	Y or Y and/or Y or Y
Insert hyphen	(As above)	H
Start new paragraph	┌	┌
No new paragraph	┐	┐
Transpose	┌┐	┌┐
Close up	linking ○ characters	○
Insert or substitute space between characters or words	/ through character or ∧ where required	Y
Reduce space between characters or words		~