

collected pre and post SLT using an in-house designed symptoms-based VCD questionnaire (scale 0–25 with high score indicating poor control). Pre and post therapy frequency of VCD attacks and the annual pre and post therapy hospital admission rates were also collected.

Results Demographics - Two hundred and forty nine patients with nasendoscopy confirmed VCD diagnosis completed SLT. This cohort was comprised of 200/249 (80%) females with a mean age of 45 years (range 14–77), mean BMI 30.9 kg/m², 203 (82%) had associated asthma diagnosis, of which 125 (50%) were on maintenance oral corticosteroids.

Symptom management - Frequency of attacks dropped following SLT with 179 (72%) reporting daily attacks pre-SLT to 25 (10%) noting daily symptoms post-SLT. A significant reduction in patient-reported symptoms was noted post SLT; pre vs. post therapy; mean (\pm SD) = 16.57 (3.96), 7.75 (4.82) respectively, $p < 0.0001$. See Figure a.

Hospital admission prevention - significant reduction in hospital admissions was noted in the year post SLT intervention: pre vs. post therapy mean (\pm SD, range) = 2.44 (4.84, 0–31); 0.31 (1.01, 0–7); $p < 0.0001$.

Conclusion SLT improves VCD symptoms scores, reduces VCD attacks frequency and hospital admissions. Further work is needed to improve overall VCD recognition and management through development of a national VCD database and regular networking of clinicians working in this area.

REFERENCE

- 1 Ayres JG, Mansur AH. Vocal cord dysfunction and severe asthma. *American Journal of Respiratory and Critical Care Medicine* 2011;**184**(1):2–3.

P227 STUDY OF CLINICAL CHARACTERISTICS OF PATIENTS WITH VOCAL CORD DYSFUNCTION

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Introduction Vocal Cord Dysfunction (VCD) is a poorly understood condition. It co-exists with and mimics asthma resulting in misdiagnosis and treatment of both conditions.¹ To better understand this population we established a VCD registry of referrals to our VCD centre extending over a 10 year period.

Method The data recorded in the registry include patient demographics, symptoms, triggers, concomitant conditions and quality of life measures. Patients were asked to complete a questionnaire of symptoms/triggers and lung function tests were conducted.

Results Over a period of 10 years there were 476 consecutive referrals to our service with probable VCD diagnosis. N = 249 (52%) had nasendoscopy-confirmed VCD diagnosis and adequate clinical details.

Demographics - The majority of referrals were from the severe asthma clinic (150/249, 60%), Female: Male = 200:49, mean age 45 years (range 14–77), BMI Mean: 30.9kg/m², range: 21–67.

Concomitant conditions: Gastro-oesophageal reflux 172 (69%); Globus pharyngeus 136 (55%); Rhinitis 92 (37%); Asthma 203 (82%). Spirometry: Mean actual FEV1: 2.23L (SD \pm 0.86), mean FEV1% pred: 87.91 (SD \pm 26.6), mean FEV1/FVC ratio = 74.5 (SD \pm 13.0). Psychological status - Hospital anxiety and depression score: Anxiety: mean 11 (range 2–21); depression: mean 8 (range 0–18).

The clinical features of this population are provided in the table below.

Conclusions Patients with VCD present with a definable range of triggers and symptoms and suffer from disabling and frequent comorbidities including psychological disease which clinicians need to be aware of when managing the condition. Further work is required to define the disease natural history and long-term outcomes through establishment of a properly designed UK wide VCD registry.

Abstract P227 Table 1

RESULTS

VCD Presentation	Number (%)
Sudden onset attacks	219 (88)
Dyspnoea	237 (95)
Difficulty breathing IN	229 (92)
Tight throat	224 (90)
Inspiratory wheeze	211 (85)
Symptoms improve with inhaler	51 (20)
VCD Triggers	Number (%)
Inhaled irritants	182 (73)
Exertion	178 (73)
Stress	168 (67)
Coughing	162 (65)
Reflux	130 (52)
Treatment	Number (%)
Inhaled Corticosteroids	224 (90)
Oral Corticosteroids	125 (50)
Speech & Language Therapy	249 (100)
Psychotherapy	76 (31)
Heliox	11 (4)
Tracheostomy	3 (1)

REFERENCE

- 1 Ayres JG, Mansur AH. Vocal cord dysfunction and severe asthma. *American Journal of Respiratory and Critical Care Medicine* 2011;**184**(1):2–3.

P228 IS THE BROMPTON BPAT A USEFUL TOOL TO ASSESS BREATHING PATTERN DISORDER IN ASTHMA?

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Introduction Breathing pattern disorder (BPD) is a prevalent cause for persistent dyspnoea in patients with asthma. The diagnosis of BPD is difficult and currently relies exclusively on subjective assessment with no reliable diagnostic tools currently validated to support a clinical assessment.

Aim To determine if the Brompton Breathing Pattern Assessment Tool (BPAT) has value in the assessment of BPD.

Method We audited an objective scoring tool, the BPAT, in patients with asthma and/or unexplained dyspnoea completing a systematic multi-disciplinary assessment. The BPAT (score 0 to 14) evaluates aspects of breathing (including; rate, flow, pattern, rhythm and air hunger). This was compared against BPD diagnosis made by current MDT practise. BPAT measures were also compared with indices of dyspnoea/disease control; e.g. walking test, Dyspnoea 12 (D12), Nijmegen and Asthma Quality of Life Questionnaire (AQLQ).

Results 75 patients; n = 54 females, were divided into 3 groups by diagnosis (asthma, asthma+BPD and BPD alone). BPAT was