In order to enable delivery of person-centred care, clinicians will need to be educated on the importance of person-centred care. Future work will test the tool’s validity and feasibility of use in everyday clinical practice.

**Breathlessness**

**P225 TRIGGERS OF VOCAL CORD DYSFUNCTION AND ASTHMA**

1SHK Chua, J Haines, C Slinger, SJ Fowler. Manchester Medical School, Manchester, UK; 2Lancashire Teaching Hospitals, Preston, UK

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**Background** Vocal cord dysfunction (VCD) is often initially misdiagnosed as, or may coexist with, asthma. Identifying the differences between the types of triggers for each condition may help differentiate between these two conditions, and could give mechanistic insights.

**Aim** The aim of this study is to identify and compare patient-reported triggers in VCD and asthma.

**Methods** This was a two-part study. Part A – A retrospective case note review of the triggers of VCD from endoscopically-confirmed VCD patients was conducted. This information was used to generate a Breathlessness Triggers Survey with triggers recorded under the categories: scents, environmental factors, temperature, emotions, mechanical factors and daily activities. Part B – A prospective study which involved patients with VCD and/or asthma completing the Breathlessness Triggers Survey, rating the likelihood of each item triggering their symptoms using a five-point Linkert scale (strongly disagree to strongly agree). Chi-square test was performed to compare responses by cohort.

**Results** Part A – Data from 202 patients with VCD (73.3% female, mean age 53.1yrs) were included in the retrospective study. The findings were used to create a 23-item Breathlessness Triggers Survey for Part B of the study. Part B – 38 patients with VCD-only (63.2% females, mean age 56.8yrs), 39 patients with asthma-only (56.4% female, mean age 53.3yrs) and 12 patients with both VCD and asthma (83.3% female, mean age, 56.8yrs) were recruited. The mean number of patient-reported triggers in the VCD and asthma cohort was 11 and 13 respectively. Mechanical factors such as talking (p ≤ 0.001), shouting (p = 0.004) and swallowing (p ≤ 0.001) were more common in the VCD cohort, whilst environmental factors such as pollen/flowers (p = 0.002) and damp air (p = 0.039) were more common in asthma. There were no differences between groups in frequency of reporting scents as triggers (except for vinegar, more common in VCD), temperature, emotions or daily activities.

**Conclusion** There were notable differences and overlaps between patient-reported triggers of VCD and asthma, which could give clues to diagnosis during clinical assessment. Future work should focus on the mechanisms underlying these findings.

**P226 VOCAL CORD DYSFUNCTION; CLINICAL OUTCOMES OF SPEECH & LANGUAGE THERAPY INTERVENTION**

NPargeter, AH Mansur. Birmingham Heartlands Hospital, Birmingham, United Kingdom

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**Introduction** Vocal cord dysfunction (VCD) is a little-known condition that frequently masquerades as and coexists with asthma resulting in misdiagnosis and mismanagement.1 Speech & Language Therapy (SLT) is the mainstay of management though treatment efficacy is yet to be proven. We report on VCD patients clinical outcomes prior to and post therapy.

**Method** All patients referred to a tertiary VCD centre with nasendoscopy-confirmed VCD diagnosis and completed SLT input were considered for this study. Clinical outcomes were recorded on the local VCD registry. Symptoms scores were...
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 (± 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 (± 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**


**P227 STUDY OF CLINICAL CHARACTERISTICS OF PATIENTS WITH VOCAL CORD DYSFUNCTION**

N Pargether, AH Mansur. Birmingham Heartlands Hospital, Birmingham, UK

**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 ± 0.86), mean FEV1% pred: 87.91 (SD ± 26.6), mean FEV1/FVC ratio = 74.5 (SD ± 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.

**REFERENCE**


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

SJ Todd,2R Livingston,1G Grillo,1A Menzies-Gow,1J Hull. 1Physiotherapy, Royal Brompton Hospital, London, UK; 2Physiotherapy, University College London Hospital, London, UK; 3Asthma and Allergy, Royal Brompton Hospital, London, UK

**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 3) 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** 73 patients; n = 54 females, were divided into 3 groups by diagnosis (asthma, asthma+BPD and BPD alone). BPAT was