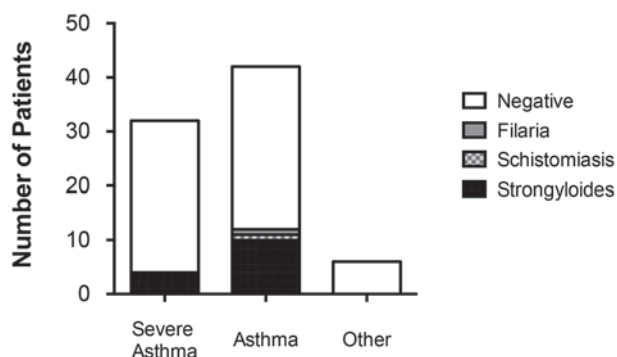


treatment with Mepolizumab. Patients were tested for strongyloidiasis, filariasis and schistosomiasis depending on travel history. Patients symptomatic of helminth infection (e.g., diarrhoea) were excluded from this evaluation.

Results We tested 80 patients, 32 from severe asthma clinic, 42 from the general asthma clinic and 6 from other clinics. From these 16 (20%) had positive parasite serology: 14 of these were for *Strongyloides stercoralis* and 1 each for filarial and schistosomal. All the positives had asthma and 4 were from the severe asthma service. The average IgE was 433 and the average eosinophil count was 0.7. There was no statistical difference between the eosinophil counts, or total IgEs, between the positive and negative groups.

Conclusion There is a high prevalence of asymptomatic parasitic infection within our cohort, suggesting local patients who have an eosinophilia should be screened for helminth disease even in the presence of another cause eosinophilia. Furthermore, we recommend all patients being assessed for a biologic that would inhibit Th2 responses, such as Mepolizumab, should be screened for latent *Strongyloides stercoralis* infection given the danger of hyper-infection upon immunosuppression.



Abstract P20 Figure 1

P21 EVALUATING THE CLINICAL IMPACT OF CORTICOSTEROID SENSITIVITY AND INSENSITIVITY OF PERIPHERAL BLOOD MONONUCLEAR CELLS IN SEVERE ASTHMA

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Steroid insensitivity and the heterogeneous nature of asthma represent a significant clinical challenge for patients with severe asthma. The use of peripheral blood mononuclear cells (PBMC) in recent studies has allowed researchers to demonstrate that poor steroid response could be due to corticosteroid insensitivity in immune cells. These cells have been used as a model to investigate the underlying molecular mechanisms of corticosteroid resistance. These models were however inconclusive and have failed to consider asthma phenotypes. Our aim was to determine *in vitro* corticosteroid sensitivity of isolated PBMCs in T_H2 high and T_H2 low patients. Severe asthma patients as classified by the Global Initiative for Asthma were recruited and divided into T_H2 high and T_H2 low cohorts based on fractional exhaled nitric oxide (FeNO). Isolated PBMCs were stimulated with $\alpha CD3/28$ alone or in the presence of dexamethasone (10^{-10} M- 10^{-6} M). IL-5, IL-13 and IL-

17 cytokine release were measured using ELISA. Correlation studies were carried out to determine whether the $LogIC_{50}$ or FeNO correlated with markers of asthma severity. PBMCs stimulated with $\alpha CD3/28$ showed significant IL-5 and IL-17 release in T_H2 low but not T_H2 high patients. Production of IL-5 or IL-7 was dose-dependently suppressed by dexamethasone with different potencies. IL-13 was only significantly stimulated in T_H2 low patients and did not show suppression by dexamethasone. A significant negative correlation between $\alpha CD3/28$ stimulated IL-17 production and FeNO was observed. Overall, PBMCs from severe asthmatics retain cell responsiveness to TCR engagement with production of T_H2 and T_H17 cytokines and inhibition by dexamethasone. Additional studies comparing T_H2 high vs T_H2 low patients are required to determine whether differences in *in vitro* CS response exist between these 2 categories of patients.

P22 INDUCIBLE LARYNGEAL OBSTRUCTIONS CAUSING BREATHING PROBLEMS: A STUDY CLASSIFYING PATIENTS' LARYNGOSCOPIC PRESENTATIONS ACCORDING TO THE ERS/ELS/ACCP 2013 INTERNATIONAL CONSENSUS CONFERENCE NOMENCLATURE

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Introduction and Objectives An international task force proposed the term 'Inducible Laryngeal Obstruction' (ILO) to describe a group of conditions which, in the literature, has over 40 descriptive terms, including, vocal cord dysfunction (VCD). The resultant nomenclature describes and details a range of laryngeal manifestations that create an obstruction to inspiratory or expiratory airflow. This study aims to trial the use of the 'laryngeal findings' aspect of the nomenclature to describe features of ILO and to gain insight into the practicality of using these definitions in clinical practice.

Method Twenty-two prospective and twenty-eight retrospective analyses of video laryngoscopic assessments for ILO were classified in a cohort of patients referred to our Tertiary Airways service who had no uncontrolled underlying respiratory symptoms. These video-laryngeal recordings were classified according to the consensus laryngeal nomenclature. The assessments were classified according to: onset of obstruction (glottic, supraglottic, or both), phase of respiratory cycle (inspiratory, expiratory, or both), onset timing (fast or slow) and resolution of symptoms (fast or slow). These classifications were conducted by two respiratory speech and language therapists and a consultant respiratory physician with extensive experience of completing such assessments to obtain diagnosis, with consensus being achieved before final rating.

Results Forty percent of patients had combined glottic and supraglottic presentation, 31% supraglottic and 29% glottic only. The majority of patients (61%) had sole inspiratory obstruction, and 67% had a fast onset of symptoms. Sixty-seven percent also had a fast resolution of symptoms; although this could not be reliably documented, as in our laryngoscopy protocol, when symptomatic, the SLT demonstrates to the patient how to reverse the obstruction with laryngeal control techniques following challenge testing to minimise patient distress, and begin therapy.