**Introduction** Diffuse idiopathic pulmonary neuroendocrine cell hyperplasia (DIPNECH) is a rare condition characterised by a generalised proliferation of pulmonary neuroendocrine cells within the respiratory epithelium. Current literature is limited, in particular little is known of its affects on pulmonary function both at the time of diagnosis and prospectively, though it is recognised to cause small airway obstruction.

**Objective** The aim of this study was to characterise pulmonary function, both at baseline and to also define the change in pulmonary function over time in patients with DIPNECH.

**Methods** Retrospective analysis of pulmonary function data for patients with a histological diagnosis of DIPNECH was performed. At baseline, pulmonary function was characterised as either obstructive, small airways obstruction, restrictive, mixed (obstructive and restrictive) or normal. Baseline gas transfer (DLCO) and lung volume data was also described. FEV1 was used as the main measure of pulmonary function, and simple linear regressions were created for patients with longitudinal data. This then allowed basic statistical analysis of the change in FEV1 compared to the predicted change.

**Results** 17 patients (82% female), with a mean age of 59, were included. All had pulmonary function data at baseline and 9 (53%) had prospective data. Baseline pulmonary function was predominantly obstructive in nature with 6 (35%) having classical obstruction, and 7 (41%) small airways obstruction alone with a normal FEV1/FVC ratio, the remaining 4 having either normal (n=3, 23%) or mixed (n=1, 6%) physiology. The mean FEV1 at baseline was 81.6%, and a statistically significant difference was present between mean measured and predicted FEV1 values for the cohort (p=0.02). Mean DLCO (n=13) was mildly decreased at 84.6% predicted however corrected to normal with volume. Lung volume data (n=8) where available was normal, except in two patients (12%) who had significantly increased residual volume. Patients with longitudinal data (n=9, 53%) predominantly showed a stable pattern of obstruction with minimal decline. Two patients (12%) did have a significantly increased decline compared to predicted values.

**Conclusion** Patients with DIPNECH typically have a stable degree of fixed obstruction, however exceptions to this will be seen in patients with a more progressive disease.