

**Conclusion** The identification of an anti-synthetase antibody is central to diagnosis and significantly impacts on patient management. This data demonstrates that ANA is an inadequate screening test. If ASS is clinically suspected, ENA testing should be performed despite a negative ANA result. The data also demonstrate that either an ENA screen or a myositis blot used in isolation lack the required sensitivity. These tests need to be used in combination to avoid false negative results.

#### P275 EBUS OR EUS IN THE DIAGNOSIS OF SARCOIDOSIS?

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**Introduction** The utility of endoscopic ultrasonography in the diagnosis of sarcoidosis was shown in the GRANULOMA trial.<sup>1</sup> However, in the study, two thirds of samples were obtained using Endoscopic Ultrasound (EUS) via the gastrointestinal tract, and one third by Endobronchial Ultrasound (EBUS). Since this does not reflect typical practice in many areas, we assessed the diagnostic sensitivity of EBUS in suspected sarcoidosis and whether sampling nodes not accessible by EUS confers benefit.

**Methods** We retrospectively collected data relating to 128 consecutive patients in two separate experienced centres, who underwent EBUS over a 3 year period (2011–2013) with a pre-test differential diagnosis of sarcoidosis. Final diagnosis was based on decision at subsequent clinic review.

**Results** 129 EBUS procedures were performed in 128 patients (57% male, mean (range) age 49 (22–79) years. 221 nodal stations were sampled (median of 2 stations each patient) with no significant complications. Concurrent trans-bronchial biopsy (TBB) was carried out in 30 patients and endobronchial biopsy (EBB) in 10.

Overall diagnostic sensitivity (for each biopsy procedure alone) was as follows: EBB 44%, TBB 50%, EBUS 71%, while combining EBUS with EBB/TBB conferred a sensitivity of 79%.

Diagnostic sensitivity of EBUS was 77% for stage 1 and 62% for stage 2 sarcoidosis, and increased according to number of

92%).

Sensitivity from EUS-accessible nodes (Stations 7 and 4) was 72%, while this was 56% in EUS-inaccessible nodes (Stations 2, 10 and 11). If EUS-accessible nodes were present and sampled, additional sampling of EUS-inaccessible nodes did not further the diagnosis.

**Conclusions** In suspected sarcoidosis, the diagnostic yield of EBUS was 71%. Using additional bronchial biopsy techniques increased this by 8%. Mediastinal nodes, accessible by both EUS and EBUS, would appear to be the preferred site of sampling. However, EBUS allows sampling of nodes not accessible to EUS, which may be diagnostic if there is isolated hilar lymphadenopathy.

#### REFERENCE

- 1 von Bartheld MB, Dekkers OM, Szlubowski A, et al. Endosonography vs Conventional Bronchoscopy for the Diagnosis of Sarcoidosis. *JAMA*; 2013;309(23):2547-2464

#### P276 CHARACTERISATION OF REFLUX AND ASPIRATION IN IDIOPATHIC PULMONARY FIBROSIS; AN INTEGRATED APPROACH

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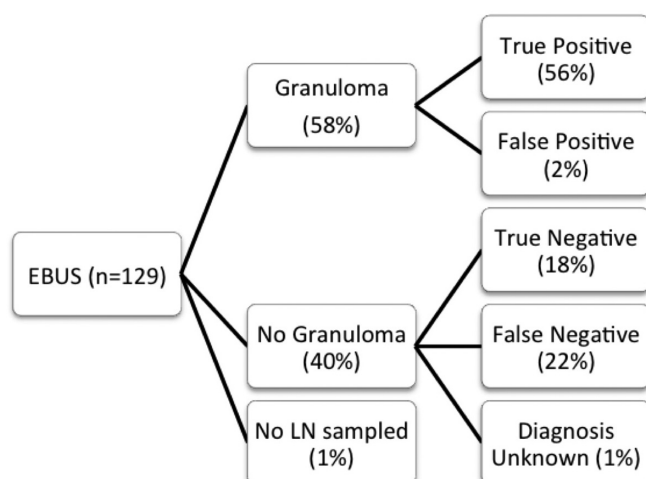
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**Background** Idiopathic pulmonary fibrosis (IPF) is a progressive condition with limited treatment options and median survival of 3–5 years. Gastro-oesophageal reflux (GOR) has been described in up to 90% of patients. Pulmonary aspiration has been suggested to contribute to IPF, with calls for aggressive antireflux therapy. We investigated reflux and aspiration in an unselected IPF cohort.

**Methods** Symptoms were assessed using a validated questionnaire. Patients with IPF underwent oesophageal manometry, pH-impedance analysis and a standardised bronchoalveolar lavage (BAL). Pepsin and bile salts were quantified in lavage supernatant using a validated ELISA and tandem mass spectrometry, respectively. Patient management was planned by an “aerodigestive” multidisciplinary team.

**Results** 35 patients were studied. Oesophageal manometry suggested normal oesophageal function in 46%. pH-impedance demonstrated supranormal GOR in 24 patients (69%). In nine of these, the combination of clinical history and structured questionnaire revealed no evidence of GORD. BAL pepsin concentrations were higher than those measured in four healthy volunteer controls: median 9.0 ng/ml (range 0–35) vs 1.1 ng/ml (0–3);  $p = 0.02$ . Bile salt concentrations were comparable in the two groups. To date, none of these patients have undergone fundoplication.

**Discussion** Oesophageal physiology and BAL assays may be combined to investigate reflux and aspiration in IPF. Our data suggest that acid reflux and weakly acid reflux is common and frequently asymptomatic. Our study suggests the need for carefully integrated assessments to inform potential treatment of reflux in IPF. High levels of oesophageal dysmotility and patient complexity support a cautious approach to antireflux surgery, which may be facilitated by multidisciplinary review.



Abstract P275 Figure 1

stations sampled (1 station 66%, 2 stations 70%,  $\geq 3$  stations