Poster sessions

that PE is associated with abnormal concentrations of many proteins involved in inflammation and vascular injury, yet there is inadequate data describing the difference in these proteins from infective processes.

Aims We aimed to determine whether there is a difference in inflammatory markers between acute PE and community acquired pneumonia (CAP) or acute lower respiratory infection (LRTI).

Methods A random sample of emergency departments (ED) and patients evaluated for acute PE at our institution (January 2013–December 2013) were retrospectively evaluated for D-dimer, C-reactive protein (CRP) and serum white cell (WCC) levels. PE was diagnosed by a positive CTPA in all cases. Inflammatory markers in confirmed PE cases were compared and matched with those of community acquired pneumonia (CAP) and acute lower respiratory infection (LRTI). We excluded all cases with incidental, chronic or previous PE.

Results A total of 295 patients were included (mean age 67.7 ± 18.45 yrs; 159 males), of which 167 (56.6%) had PE, 58 (19.7%) had CAP, 63 (21.4%) LRTI and seven (2.4%) had other respiratory conditions (Table 1). The mean WCC (g/l) was similar between PE (10.9 ± 4.8), pneumonia (11.9 ± 5.2) and acute LRTI (12.2 ± 5.9) ($p = 0.2$). Similarly, there were no significant differences among disease groups for median CRP levels (mg/l); PE (67.3 (4–412); CAP (88.9 (12–417) and acute LRTI (median 68.9 (9–284), ($p = 0.322$). In contrast, levels of D-dimer were significantly higher in PE than CAP or ARTI) ($p = 0.000$).

Conclusions In patients suspected of acute PE, unlike D-dimer, levels of WCC or CRP do not reliably distinguish between PE, pneumonia or acute LRTI. These may not be relied upon to determine the clinical probability of PE.

P164 **Δ NTPROBNP PREDICTS SURVIVAL AND MORE ACCURATELY REFLECTS CHANGING RIGHT VENTRICULAR STRUCTURE AND FUNCTION THAN 6MWD IN PULMONARY HYPERTENSION**

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Right ventricular (RV) function is known to predict survival in pulmonary hypertension (PH). Furthermore, increasing right ventricular volumes (RVEDVI, RV end diastolic volume and RVESVI, RV end systolic volume index) and falling ejection fraction (RVEF) whilst on treatment have been shown to determine poorer outcome.¹ Measurement of RV function by cardiac MRI (CMR) is not widely available and often poorly tolerated in very

breathless patients. Monitoring of PH patients traditionally focuses on serial 6 min walk testing (6MWD) and N terminal pro brain natriuretic peptide (NTproBNP), a biomarker that has been shown to reflect RV function and structure.² We hypothesised that Δ NTproBNP is a superior non invasive marker of Δ RV function than Δ 6MWD, and predicts survival.

Methods 59 patients with precapillary PH whom underwent serial CMR between 2004 and 2014 with 6MWD and/or NTproBNP sampling within 1 month of scan were retrospectively included. 146 Δ RV function values were calculated. For survival analysis, patients were censored at last day of study (24/6/14) or if lost to follow up. Survival was taken from the date of the second CMR scan. Due to the interaction between cardiac MRI values, only univariate survival analysis was performed.

Results Δ NTproBNP correlates more closely with Δ RVEF, Δ RVEDVI, Δ RVESVI than 6MWD (table1). Both Δ NTproBNP and Δ 6MWD predicted survival [HR 1.001 95% CI 1.001–1.002 p

Conclusion Δ NTproBNP is superior to Δ 6MWD as a surrogate marker of changing RV function which can be easily evaluated in the clinic setting. Both Δ NTproBNP and Δ 6MWD predict survival in PH.

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P165 **AMBULATORY MANAGEMENT OF SUSPECTED PULMONARY EMBOLISM AT A DISTRICTGENERALHOSPITAL. A 2 YEAR REVIEW**

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Background Studies have suggested that outpatient (OP) management of suspected pulmonary embolism (PE) is feasible.¹ At our DGH (popn 289400) in 2012 we found that over a 2 month period most suspected PE patients (suitable for ambulatory care) were being identified resulting in significant (17 nights) bed savings.²

The aims of repeating our study were

1) to ascertain the proportion of patients who had a CTPA that were managed as OP and subsequent nights saved 2) to identify any further patients that could have been managed as OP and potential nights saved 3) a comparison with 2012

Methods RADIS was used to collect all CTPA's performed between 1st Jan 2014 and 28th February 2014. Inclusion criteria: Ambulatory, normal heart rate, respiratory rate, blood pressure and oxygen saturations, any patient who was managed as an OP. Simplified PESI Score <1. Exclusion criteria: Pre-existing in-patients that had a CTPA ordered where the primary admission (and in-patient stay) was not for suspected PE, patients who had their CTPA on the same day of discharge, OP CTPA where waiting time was >2 weeks, sPESI Score >1, clinical concern.

Results For the above period 102 CTPA's were performed (105 in 2012). Average time from request to CTPA was 4.7 h (0.5–24 h. 4.1 hrs in 2012) Figure 1 shows the excluded patients. 9 patients were included; 7 were female, average age 47 years (23–66 years). All had a sPESI score

Abstract P164 Table 1 Pearson correlations for Δ NTproBNP and Δ 6MWD with indices of Δ RV function. Abbreviations; right ventricular ejection fraction RVEF; right ventricular end diastolic volume index RVEDVI; right ventricular end systolic volume index RVESVI; stroke volume index SVI

RV variable	Δ NTproBNP			Δ 6MWD		
	(n)	Correlation coefficient	P value	(n)	Correlation coefficient	P value
Δ RVEF	101	-0.517	<0.0001	121	0.277	0.002
Δ RVEDVI	101	0.517	<0.0001	121	-0.093	NS
Δ RVESVI	101	0.664	<0.0001	121	-0.234	0.01
Δ SVI	100	-0.407	<0.0001	120	0.367	<0.0001