Abstract P178 Figure 1

how test Results influence the predictive value of further testing is essential for effective risk stratification, and this work adds to the growing body of data examining the long-term implications of a CTPA result.

REFERENCES

- Wiener RS, Schwartz LM, Woloshin S. Time trends in pulmonary embolism in the United States: Evidence of overdiagnosis. *Arch Intern Med. American Medical Association* 2011;171(9):831–7.
- Morley NCD, Muir KC, Mirsadraee S, van Beek EJR, Murchison JT. Ten years of imaging for pulmonary embolism: Too many scans or the tip of an iceberg? *Clin Radiol: Elsevier* 2015.

P179

UTILISATION OF RESPIRATORY AND HAEMATOLOGY MULTI-DISCIPLINARY TEAM (MDT) MEETING FOR EFFECTIVE FOLLOW-UP AND MANAGEMENT OF PULMONARY EMBOLISM (PE) IN A DISTRICT GENERAL HOSPITAL

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Background Patients are diagnosed with PE in our hospital by a variety of health care practitioners in numerous clinical settings including Ambulatory Care. Following diagnosis and initiation of therapy, all patients should be referred to the PE Clinic for follow-up at 3 months to ensure that risk stratification for on-going venous thrombotic episode (VTE) is undertaken, anti-coagulation therapy duration is optimised and adequate screening for cancer and chronic thrombo-embolic pulmonary hypertension (CTEPH) undertaken.

Aim To evaluate the effectiveness of PE MDT (Respiratory and Haematology) meeting prior to Respiratory-led PE follow-up Clinic.

Methods PE patients referred to the PE MDT from January 2016–2017 were included. Demographic data was collected (gender, age, co-morbidities, referral source). The cause of VTE was established and duration of anti-coagulation therapy

reviewed. Risk stratification and screening for cancer and PHT outcomes were documented.

Results 113 patients (56 male [49.5%]; average age 64 years; range 20–96) were discussed. 51 (45%) presented via Ambulatory Care with only 9 (8%) from Respiratory. PE was idiopathic in 56 (49.5%) of which 14 (25%) were a second VTE. Secondary causes included surgery (24) and BMI ≥40 (11). 66 (58%) received screening tests to exclude underlying cancer: new cancer diagnosed in 2 (lung, urological); 2 had cancer recurrence within 1 year; 5 required lung nodule surveillance. All patients were screened with echocardiography and only 3 did not undertake 6 min walk test (immobility). Subsequently, 2 patients required referral for further investigation of CTEPH. Haematology advice changed management in 47 (42%) cases, usually increased duration of anti-coagulation therapy. 4 patients had high DASH (D-Dimer, Age, Sex, Hormones) score post-treatment necessitating anti-coagulation restart. 1 patient had early PE recurrence following completion of recommended duration anti-coagulation. Only 7 patients required on-going Haematology referral and investigation. Respiratory advice changed treatment in 3 persons by reducing recommended duration of therapy. 16 patients required on-going Respiratory review for another respiratory illness.

Conclusion A systematic MDT approach has been shown to be safe and effective and optimises PE patient care. The next step would be to have Respiratory and Haematology input at MDT with an Acute Physician-led PE follow-up Clinic.

P180

MANAGING PREGNANCY IN PULMONARY HYPERTENSION USING A MULTI-PROFESSIONAL APPROACH: A 16-YEAR EXPERIENCE IN A SPECIALIST REFERRAL CENTRE

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Background Pulmonary hypertension (PH) in pregnancy is associated with a high risk of maternal death (30%–50%). Despite risks, patients may actively plan pregnancy. Patients may also present whilst pregnant with previously undiagnosed PH.

Methods Retrospective review of patients presenting during pregnancy at a PH centre between 2001 and 2017.

Results A total of 27 patients were identified over a 16 year period from 2001 till April 2017. Patients were classified as WHO group 1 (n=25) or group 4 (n=2). Eight of the 27 patients had 2 or more pregnancies and in total 36 pregnancies were managed during the study period. Of the 36 pregnancies, 20 resulted in live birth, 9 ended with medical termination and 7 resulted in a miscarriage. All patients were supervised by a multi-professional team (PH physicians, anaesthetists, obstetricians, intensivists and nurse specialists). 19 deliveries were by Caesarean section with 1 vaginal delivery and planned between 32 to 36 weeks; the earliest live birth was at 25+5 weeks post cardiorespiratory arrest at 25 weeks. Patients underwent epidural or combined spinal/epidural regional anaesthesia and were monitored peri-delivery in an intensive care environment with arterial and central venous access. Of 36 pregnancies, 2 women died within 6 months of delivery (3 and 28 days post-delivery) and none during pregnancy. Patients were followed until January 2017; mean follow up 64 months (range 0–174 months) after last pregnancy. The 5 year survival for all patients (n=27) from date of last pregnancy with PH was 92%.

Conclusion Mortality of PH in pregnancy in a setting of experienced and coordinated care is less than historical series but remains significant. Counselling women with PH of these risks remains an essential part of disease management. In the event of pregnancy, patients should be managed by a multiprofessional team with peripartum care in an intensive care environment.

P181 PULMONARY ARTERIOVENOUS MALFORMATIONS, HEREDITARY HAEMORRHAGIC TELANGIECTASIA AND IRON TREATMENTS

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Introduction Patients with pulmonary arteriovenous malformations (PAVMs) usually have underlying hereditary haemorrhagic telangiectasia (HHT), when iron deficiency often develops due to recurrent nasal and gastrointestinal haemorrhage. Iron deficient PAVM/HHT patients have more ischaemic strokes and venous thromboemboli. However, recent UK data indicate that cerebral abscesses are more common in PAVM patients using intravenous iron and/or with high normal transferrin saturation index.¹ Furthermore, ~1 in 20 HHT patients report that iron treatments exacerbate their nosebleeds.² The goal of this study was to evaluate clinical patterns of iron treatments in patients with PAVMs and HHT.

Methods Iron, red cell and microbiology indices were evaluated as part of routine clinic assessments of patients with PAVMs and/or HHT. With ethical approval, all available patient datasets between 04/2015 and 07/2017 were recorded, categorised according to patient status, and analysed using STATA IC v13 (Statacorp, Texas).

Results At first assessment, 72 patients were using oral iron alone, and 21 were using intravenous iron +/-iron tablets. As noted in figure 1, intravenous iron users had lower haemoglobin concentrations than oral iron users, despite higher serum ferritin. None of the 16 selected PAVM patients evaluated had positive blood cultures in the clinic, or developed positive cultures following *ex vivo* iron treatments. Three of seven selected patients had low serum haptoglobin (0.32–0.36 g/L, reference range 0.5–2.4 g/L) potentially indicative of shortened intravascular red cell survival. 31 patients were commenced on oral or intravenous iron, or recommended a dose increase, but 56 were advised dose reduction. Post assessment, daily iron dosages tended to be lower (elemental iron content 14–130, median 35 mg/day) than at first assessment (elemental iron content 14–260, median 65 mg/day, p=0.08). In two patients, external clinicians advised that iron dose reduction led to at least temporary cessation of blood transfusion requirements. Reported nosebleed improvements were common, though may have also been due to intervening treatment of PAVMs.²

Conclusions Further study on the clinical efficacy and sequelae of iron treatments, and a more personalised approach to therapy, appears warranted in this patient group.

REFERENCES

- Boother, et al. *Clin Infect Dis* 2017. doi:10.1093/cid/cix373
- Shovlin, et al. *ERJ Open Res* 2016;2(2):00035–2016.

P182 THE APPROPRIATENESS OF THE USAGE OF CT PULMONARY ANGIOGRAPHY FOR THE DIAGNOSIS OF PULMONARY EMBOLISM; EVALUATION OF THE CURRENT PRACTICE AT EAST KENT HOSPITALS UNIVERSITY NHS FOUNDATION TRUST AND REVIEW OF SIMILAR STUDIES

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Background Computed tomography of pulmonary angiogram (CTPA) is widely used for the diagnosis of patients with possible pulmonary embolism (PE). We sought to audit the positive yield of CTPAs performed in our Trust over a total of two months and compare our practice against accepted standards. The Royal College of Radiologist (UK) suggests 15.4%–37.4% as an acceptable CTPA positive rate. Studies auditing clinical practice in UK and non-UK hospitals were also reviewed.

Methods The Results of a total of 236 CTPAs from Queen Elizabeth the Queen Mother Hospital in Margate and the William Harvey Hospital in Ashford were retrospectively reviewed. Patients' baseline and clinical details as well d-dimer levels were retrospectively collected. Wells score was calculated for each patient based on the clinical notes. The documentation of pre-test probability score in the request forms was also assessed.

Results The reported findings for the 236 CTPA scans were PE in 34 (14%) scans, significant pathology was detected in 53 (22%) scans, an alternative diagnosis was made in 54 (23%) and no abnormality was detected in 88 (37%) scans. Only 12 (5%) cases had clinical probability scores documented. The majority (68%) of patients with high Wells score had CTPA done without d-dimers testing. Our review of the