P207 PROSPECTIVE INVESTIGATION OF TUBERCULOSIS TREATMENT DELAYS

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Introduction The World Health Organisation goal is to halve Tuberculosis incidence by 2025.[1] Delays in starting Tuberculosis (TB) treatment leads to an increased risk of cross infection and severity of disease, both in pulmonary (PTB) and extrapulmonary (EPTB) disease. Public Health England data showed that our hospitals were underperforming compared to National performance regarding the time between symptom onset and starting TB treatment.

Aim To identify where patients diagnosed with tuberculosis were facing delays in their care pathway before starting TB treatment.

Method This was a prospective study of all patients diagnosed with tuberculosis (PTB and EPTB) in 2018 at the two District General Hospitals in our county. A TB treatment delay questionnaire was completed with the patient at the time of starting anti-tuberculosis medication.

Results In 2018, 82 patients were diagnosed with TB, of which 56% were male. The median age was 37 years (range13–91) at the time of diagnosis. 82% of TB patients were born aboard. 13 out of the 28 PTB patients (46%) presented to Primary Care, and had a mean number of 2 GP visits before referral onwards. 3/13 were referred directly to the TB service, 3/13 to A&E, 4/13 to the Lung Cancer service and 3/13 to Acute Medicine. The 8 patients not meeting the target of referral within 28 days had a wide range of ages, 3/8 were UK-born (1 white British) and 5/8 had appropriate management in Primary Care on subsequent TB clinician review.

Conclusion The main delay in the diagnostic pathway was in Primary Care, although on whole the diagnosis was prompt. Once patients were seen in secondary care, the majority were diagnosed and started on TB treatment quickly. Raising awareness of TB, delivering TB teaching for GPs and streamlining the referral pathway directly to the TB team are essential to reduce diagnostic delay and subsequent morbidity and onward transmission of disease.

Abstract P207 Table 1 Stages in diagnostic pathway for TB patients in 2018 at two District General Hospitals

	PTB (n= 28)	EPTB (n= 54)
Patient Delay (Median time from symptom onset to presentation to healthcare professional)	11 days (range 0–102) Target = 14 days 9/24 (37%) missed target	14 days (range 0–352) Target = 28 days 11/51 (22%) missed target
Primary Care Delay (Median time from 1st GP review to Secondary Care referral)	31 days (range 0–240) Target = 28 days 8/13 (62%) missed target	15 days (range 0–270) Target = 28 days 10/35 (29%) missed target
Secondary Care Delay (Median time from date referred to Secondary Care to TB team referral)	13 days (range 0–102) Target = 14 days 5/14 (36%) missed target	17 days (range 0–540) Target = 28 days 12/37 (32%) missed target
TB team appointment delay (Median time from being referred to TB team to being seen)	2 days (range 0–109) Target = 14 days 4/48 (14%) missed target	11 days (range 0–71) Target = 28 days 9/53 (17%) missed target

REFERENCE

1. World Health Organisation,The End of TB Strategy, 2014.

P208 TUBERCULOUS PLEURAL DISEASE IS ASSOCIATED WITH A HIGH RATE OF HOSPITAL ADMISSION

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Purpose Tuberculous pleural disease accounts for a minority of TB disease in England and yet in 2018, of the 17 acute admissions for TB diagnosis to a major teaching hospital, 5 patients had pleural tuberculosis (PLTB)

Methodology All adults diagnosed with PLTB between January 2011 and December 2018 were retrospectively evaluated with regard to their clinical history, investigations, management and outcomes.

Results In total, 92 patients (median age 34 years; range 17–89; male 70%; UK born 14%) with PLTB were identified. TB was identified in 122 sites with the most common additional sites (AS) affected being pulmonary (25/35), mediastinal lymphadenopathy (20/35) and cervical lymphadenopathy (9/35) accounting for 65.6% additional non-pleural disease sites.

64/92 (69%) were admitted to hospital as a result of their TB disease (median adjusted length of stay (LOS) 10 days; range 2–239). 46% of admitted patients had pleural disease alone compared with 18% of those not admitted (RR 1.41; 95% CI 1.1 to 1.8; p 0.0069).

Pleural culture was positive in 36/85 (42%). In the pleural culture negative cohort, AS sampling was undertaken in 24/46 patients and yielded positive culture results in 13/24 (54%). Therefore, overall culture positivity 49/90 (54%). Only 2 patients had neither pleural nor AS sampling undertaken. Eleven patients with culture negative pleural disease were consistently culture negative following AS sampling.

Admitted patients with PLTB were significantly more likely to have a positive pleural culture compared to those managed in the out-patient setting: 58% vs 9% (RR 6.39; 95% CI 1.7 to 24.3; p 0.0066).

Conclusions Admission is likely to be a marker of TB disease burden/severity and those with pleural disease have prolonged LOS and pleural culture positivity. Pleural fluid is invariably AFB smear negative. Thus, if a second site is accessible, sampling should be undertaken to improve culture positivity with subsequent drug sensitivities.

P209 CHEST WALL TUBERCULOSIS PRESENTATIONS IN EAST LONDON

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Introduction Tuberculous abscesses are rare, accounting for 1% of extra-pulmonary tuberculosis (TB). The chest wall is often a site for cold abscesses. There have been only case reports described in the literature. We report a case series of chest wall TB diagnosed in a large European centre.

Methods A retrospective analysis of at a large European centre of all TB cases between 2005 -2018 notified in the London TB register.

Results We identified 22 cases of chest wall TB, this was 0.3% of all TB cases over this time period. 81.8% (18/22) were male, the median age was 33.06 years (SD 14.05 years). 81.8% (18/22) were of Asian ethnicity. 31.8% (7/22) had concurrent pulmonary TB whilst 22.7% (5/22) had concurrent osteomyelitis, of these 60% (3/5) had osteomyelitis of the spine.

81.8% (18/22) were M.TB culture positive, with just 5.5% (1/18) who had resistant disease (to Streptomycin and Isoniazid). In 71% (15/21) of cases we were able to demonstrate granulomatous inflammation on histology.

95.4% (21/22) received 6 months of treatment. All patients completed their treatment successfully and no relapses were recorded, no patient required surgery.

Conclusion The diagnosis of chest wall TB can be challenging but should be considered in an at-risk population. Microbiological diagnosis is highly attainable and will help guide treatment. Prompt diagnosis and treatment is important in preventing additional complications, often in the form of osteomyelitis.

P210 TUBERCULOMAS EPIDEMIOLOGY AND TREATMENT – EXPERIENCE IN A REFERRAL CENTRE

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Background Tuberculomas are well defined focal masses that result from *Mycobacterium tuberculosis* infection and are most commonly found in the lungs and central nervous system. Despite it was considered a low-incidence country by WHO, Portugal still have a relatively high incidence comparing to most of European countries.

Objectives The aim of this study was to analyse tuberculomas population in a referral centre in Portugal.

Methods Restrospective study that included patients refered to a tuberculosis especialized centre and a university hospital with the diagnosis of tuberculoma between 2002 and 2018. Analysed variables were: age, gender, co-morbidities, symptoms, tuberculoma location and treatment.

Results 24 patients were studied with mean age 58.7. 17 (70.8%) were male and 7 (29.2%) were female. 58.3% (n=14) were non-smokers and 41.7% (n=10) were smokers or former smokers. 9 patients (37.5%) had prior neoplasms, 5 (20.8%) had COPD, 4 (16.7%) alcoholism, 2 (8.3%) other infectious diseases and 2 (8.3%) autoimunne disorders. 1 patient (4.2%) was HIV-positive and other(4.2%) had prior renal and cardiac transplant. 20.8% (n=5) of the patients presented with neurological symptoms, 16.7% (n=4) with constitutional and respiratory symptoms, and the same proportion with only constitutional symptoms. 3 patients (12.5%) presented with respiratory symptoms alone. 1 patient (4.2%) presented only with odynophagia and 4 patients (16.7%) had no symptoms at diagnostic. 70.8% (n=17) had lung tuberculoma (10 in the right lung, 12 in the superior lobes), 25% (n=6) had brain tuberculoma and 1 patient (4.2%) had both brain and liver tuberculoma. 45.8% of the patients (n=11) were treated with classic combination of a 4-drug regimen: isoniazid, rifampin, pyrazinamide, and ethambutol alone, 3 patients (12.5%) were treated with other drug regimens, 3 (12.5%) with tuberculoma ressection alone and 5 (20.8%) with a combination of 4-drug regimen with surgery. One patient (4.2%) died before initiating treatment, with no other deaths recorded and two patients (8.3%) abandoned the therapy.

Conclusions In this population tuberculomas were found mainly in brain and lung. Patients were mainly men and most had significant comorbidities. The disease was treated successfully in almost all cases either by surgery or anti-tuberculous drugs or combination of both.

Beyond airways disease: ILO and cough

P211 COMORBIDITY BETWEEN ASTHMA, INDUCIBLE LARYNGEAL OBSTRUCTION AND BREATHING PATTERN DISORDER

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Introduction Symptoms of breathlessness in people referred to a Tertiary Airways and Severe Asthma service may be due to a variety of treatable conditions, including asthma, inducible laryngeal obstruction (Ilo) and breathing pattern disorder (BPD).

Previous research has shown overlap between asthma and Ilo (Low et al, 2011), and between asthma and BPD (Boulding et al., 2016). In clinical practice, overlap between Ilo and BPD is also common, but this has not been consistently shown in research.

Aims and objectives To explore the incidence of Ilo, asthma and BPD and the overlap between these conditions in a sample of patients referred to a tertiary airways service, and to investigate patient characteristics associated with each condition.

Methods Patient notes were reviewed for people referred to a tertiary airways service for symptoms of breathlessness over an 18 month period. Assessment information was collated for patients (n=306) diagnosed with asthma, Ilo and/or BPD.

Results Of the 306 patients, 235 (77%) were diagnosed with Ilo via videolaryngoscopy, 177 (58%) were diagnosed with asthma, and 83 (27%) were diagnosed with BPD.

There was significant overlap between the three conditions, with 186 patients (52%) having at least two conditions. The most common overlap was between asthma and Ilo (30% of patients), followed by Ilo and BPD (11%). In contrast, only 3% of patients in this sample had both asthma and BPD. All three conditions were seen in 9% of patients.

A visual representation of overlap is presented in figure 1 below:

Of the three conditions, Ilo most commonly co-occurred with asthma, whilst BPD most commonly co-occurred with Ilo. When BPD co-occurred with asthma, this was most commonly seen together with Ilo.

Conclusions This study showed high levels of overlap between conditions that can contribute to symptoms of breathlessness. This emphasises the importance of a multi-professional assessment and optimisation of comorbid treatable traits, such as Ilo and BPD. It may also serve as a reminder for a timely referral for specialist assessment and management of treatable traits to avoid the potential of morbidity, increased healthcare utilisation and over-medication in severe and difficult to treat asthma.