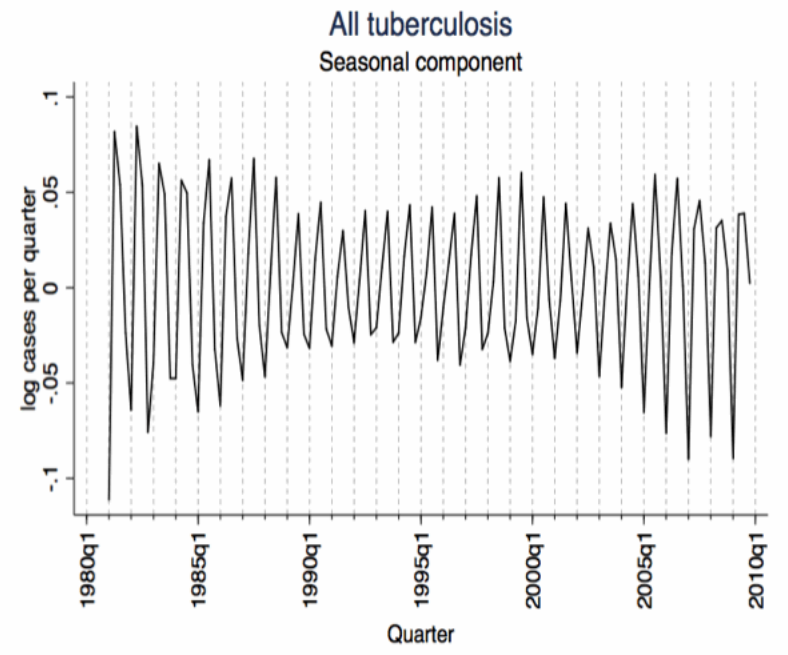

Figure 1. Seasonal tuberculosis notifications adjusted for the effect of long term trend. Vertical interrupted lines mark winter months.

Abstract P49 Figure 1

incidence 80 per 100,000. TB is therefore a disease of major public health importance in Birmingham.

Objectives We sought to determine the contribution of seasonal variation to TB incidence in Birmingham.

Methods Information was collected prospectively on all adult TB notifications for Birmingham covering the thirty-year period from 1980 to 2009. Unmeasured component models were used to decompose incidence data into seasonal and long term trends.

Results There were 10,892 cases of tuberculosis notified during the study period from winter 1988/9 to autumn 2009. There was strong evidence for seasonality in tuberculosis notifications with peaks occurring every summer (Figure 1, AICD 10.5). This seasonality was apparent in both pulmonary and extra pulmonary tuberculosis (AICD 12.1 and 11.0, respectively). There was no support for seasonality in UK-born cases (AICD –12.0), but seasonality was apparent in non-UK born cases (AICD 11.8).

Discussion and Conclusion TB notifications peak every summer and may plausible be linked to conditions in the preceding winter. Winter crowding may lead to increased transmission of tuberculosis, which then manifests as active TB in the summer. Alternatively, reduced exposure to sunshine during the winter and decreased vitamin D levels may result in impaired host defence to tuberculosis. The potential link between seasons and vitamin D levels is interesting, because vitamin D supplementation of at-risk populations is a plausible public health intervention.

P50 PITUITARY GRANULOMATA - TB OR NOT TB

doi:10.1136/thoraxjnl-2012-202678.191

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Granulomatous disease of the pituitary gland is rare and of this pituitary tuberculosis (TB) is the rarest, making its diagnosis or exclusion challenging. We discuss six cases. Patients ages ranged between 25–43; 3 were male. 3 were born in UK, the others in Afghanistan, Bangladesh and Somalia respectively. 5 patients presented with headaches, two of whom had bitemporal haeminopia and one also had diabetes inspidus; one presented with cervical lymphadepothy and diabetes inspidus. 3 had weight loss, pyrexia and night sweats. All had MRI scanning; 4 patients showed thickening of pituitary stalk and intense enhancement of the gland, one had a presumed macro-adenoma and another had a cystic mass. 5 patients had trans-sphenoidal surgery (TSS); 3 for diagnostic biopsy, one for urgent decompression of a pituitary mass, another for the macro-adenoma. One had cervical lymphnode biopsy: histology demonstrated granulomatous inflammation in 4 samples, one also had focal necrosis, another was culture positive for AFB. 4 patients had lumbar puncture: CSF cultures for MTB and PCR were non-diagnostic and CSF-ACE was negative; one sample showed lymphocytosis. One patient had abnormal CXR with cavitating lesions and mediastinal lymphadenopathy. 5 patients had vasculitic screens which were negative. All 5 patients who had TSS were left with hypo-pituitarism and on hydrocortisone replacement. The main differential diagnosis was TB or sarcoidosis. 4 patients were treated with anti-TB therapy (ATT) and high dose steroids for one year. The one who grew MTB was treated with ATT alone. The sixth had ATT for six months as well as high dose steroids. Pituitary TB is very rare and only 50–60 cases are reported in literature where not all patients treated with ATT cultured MTB; Imaging modalities are non-specific and show thickening of pituitary stalk and intense post contrast enhancement of the gland as with our patients but this is commonly described in other infections and neoplasm as well. Diagnosis is therefore difficult and challenging and tissue biopsy or microbiology may even not be conclusive. A multidisciplinary discussion of these patients is crucial.

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