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Paper Poster Session

Pathology, diversity and clinical outcome in TB

Tuberculosis in a Portuguese cohort

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Background: Tuberculosis (TB) is a multisystemic disease. It's one of the leading causes of infectious disease-related mortality worldwide and, being often unrecognized, there can be relevant delays in its' diagnosis. TB is also one of the most common opportunistic infections and cause of death in AIDS patients.

This study aims to characterize patients with TB in a Portuguese cohort.

Material/methods: Retrospective analysis of inpatients admitted between January/2005 and December/2014 with diagnosis of TB. Data were analysed using χ^2 or Fisher exact test when appropriate ($p < 0.005$ = statistically significant) and odds ratio was calculated.

Results: A total of 222 record files were found. Of these, 128 patients had pulmonary involvement (PTB) and 100 had extrapulmonary disease (ETB) – 6 had overlapping disease. The most common locations of ETB were lymphatic (27%), meningeal, osteoarticular (both 19%) and disseminated (15%). Men were mostly affected (PTB 76.6%; ETB 56.0%), with a median age of 40.0 (PTB) and 44.5 years (ETB). Both groups presented less cases in the last 5 years analysed ($p < 0.005$).

The majority exhibited risk factors for TB (63.96%, $p < 0.005$). PTB was associated with smoking ($p = 0.000$, $OR = 5.053$) and contact with TB-infected person ($p = 0.002$, $OR = 7.53$). HIV infection ($p = 0.000$, $OR = 5.16$) and age over 65 ($p = 0.005$, $OR = 3.34$) were associated with ETB. Use of immunosuppressive therapy or institutionalization demonstrated increased risk of acquisition in PTB patients ($OR = 4.57$).

Constitutional symptoms/signs (like weight loss, asthenia and anorexia) or cough, were common in PTB patients. ETB patients presented usually poor clinical symptoms/signs or focal symptoms like lymph node enlargement in lymphatic disease or back pain in osteoarticular disease.

48 patients had concurrent HIV infection (PTB $n = 15$, ETB $n = 36$). CD4 count was obtained in 26, with a median of 74.5 cells/ μ L (13-136). The majority of cases occurred in the setting of new HIV diagnosis ($n = 34$, 70.8%). HIV infection was statistically associated ($p = 0.000$) with disseminated ($OR = 12.64$), pleural ($OR = 8.5$), meningeal ($OR = 2.96$) and lymphatic TB ($OR = 2.38$). HIV negativity was associated ($p = 0.000$) with pulmonary ($OR = 4.08$) and osteoarticular disease ($OR = 5.42$).

PTB was confirmed mainly by culture or PCR test plus smear (81.3%). ETB diagnosis was difficult being considered as probable (PCR or smear or histology) in 41% and as possible (clinical criteria) in 45% of cases.

Clinical outcome was mostly favourable (PTB 98.4%; ETB 94.0%). Eight patients died.

Conclusions: TB remains an important healthcare issue, although incidence is decreasing in Portugal. Contact with a TB-infected person and smoking, for PTB, and HIV infection and age over 65, for ETB, were relevant risk factors. Most clinical characteristics identified were consistent with

literature. ETB diagnosis can be complex and focal symptoms can lead clinical investigation. Risk of ETB in HIV patients seems to be higher than PTB. HIV infection was associated with disseminated, pleural, meningeal and lymphatic disease.