

Session: P082 Tuberculosis: pathogenesis, diagnostics and drug resistance

Category: 2a. Tuberculosis and other mycobacterial infections

25 April 2017, 12:30 - 13:30
P1678

Evaluation of Xpert MTB/RIF for diagnosis of tubercular lymphadenopathy

Abhenil Mittal^{*1}, Surendra Sharma², Neeraj Nischal²

¹*All India Institute of Medical Sciences; Internal Medicine*

²*All India Institute of Medical Sciences*

Background:

Extra pulmonary TB (EPTB) is a rising global health problem and constitutes about 15-20% of all TB cases worldwide. The most common form of EPTB is lymph node TB (LNTB). Culture has been the gold standard for diagnosis, however, the sensitivity of culture itself is low, hence other modalities are needed for rapid and accurate diagnosis

Material/methods:

345 adult patients with lymphadenopathy from outpatient and inpatient departments of AIIMS, New Delhi were recruited between April 2015 and June 2016 after obtaining written informed consent. Clinical history was recorded in a pre-defined proforma and all patients were subjected to either FNAC or excision biopsy. The sample was sent for Zeihl-Neelsen staining, Xpert MTB/RIF, liquid culture by MGIT 960 and histopathology. The patients were followed up for three months to assess treatment response. Xpert MTB/RIF was compared against a composite reference standard (CRS) using standard 2*2 table. "Definite" cases by CRS were those that were culture positive whereas "probable" and "possible" cases included those with symptoms of tuberculosis, positive ZN stain or histopathology suggestive of tuberculosis and those who responded to treatment

Results:

Out of 345 patients recruited, 185 were males and 160 were females with a mean age of 31.69 years. 18 patients were retro positive and 57 patients were treatment experienced. 185 patients underwent FNAC from either peripheral/ internal node out of which 70 (42.6%) were inconclusive as compared to 3 (1.8%) in the biopsy group. Among ATT naïve patients which were "definite" by CRS, Xpert MTB/RIF had a sensitivity of 81.03% (69.15-89.07) with a specificity of 98.01% (94.32-99.32). Among ATT naïve "probable/possible" cases, sensitivity was 63.8% (52.8-73.43) with a specificity of 98.01% (94.32-

98.09). In ATT experienced cases "definite" cases, sensitivity was 77.8% (54.78-91) and specificity of 100% (74.12-100). Similar results were seen in ATT experienced "probable/possible" cases.

Conclusions:

It can be concluded that Xpert MTB/RIF could be used as a rapid and accurate test for diagnosis of LNTB irrespective of prior treatment status of the patient and acts a good rule in test due to its high specificity. Also it may be prudent to consider all patients presenting with easily accessible lymph nodes for an excisional biopsy upfront so that adequate tissue is available for microbiological testing and histopathology