

## EVALUATION OF ROLE OF XPERT MTB/RIF IN DIAGNOSIS OF EXTRA PULMONARY TUBERCULOSIS IN PATIENTS ATTENDING TERTIARY CARE HOSPITAL

### ABSTRACT:

**BACKGROUND:** Globally extra pulmonary tuberculosis (EPTB) accounts for 25% of all tuberculosis cases. The Gene Xpert MTB/RIF assay is a newly developed, automated diagnostic molecular test recommended by WHO for diagnosing EPTB. In the current situation determination of MDR status is also important. Thus Xpert MTB/RIF assay plays a major role in diagnosing extrapulmonary tuberculosis and MDR status.

**AIM:** To evaluate Xpert MTB/RIF assay in diagnosing *Mycobacterium tuberculosis* in extra pulmonary samples.

**MATERIALS AND METHODS:** Around 500 extra pulmonary samples from patients suspected of extrapulmonary tuberculosis were tested. We evaluated the sensitivity and specificity of Xpert MTB/RIF with gold standard liquid culture and composite gold standard. Individually each sample type were analysed against liquid culture.

**RESULTS:** In total 500 extrapulmonary samples were analysed against culture and composite gold standard. Compared to gold standard liquid culture, the sensitivity and specificity of Gene Xpert MTB/RIF assay was 94.7% and 99.5% respectively. While using Composite Gold Standard, Xpert MTB/RIF assay showed a pooled sensitivity of 63.5% and specificity of 99.5%. Multidrug resistance tuberculosis was reported in 5.35% of extrapulmonary samples.

**CONCLUSION:** We conclude that Xpert MTB/RIF assay can be used for diagnosing extra pulmonary tuberculosis with a good sensitivity and specificity. It also allows rapid identification of MDR TB.

**Keywords:** Extrapulmonary tuberculosis, Xpert MTB/RIF, Rifampicin resistance.