

ABSTRACT

Objectives:

To illustrate the spectrum of radiological findings of multi-drug resistant tuberculosis (MDR-TB) in computerized tomography (CT) of chest. To compare the CT findings of MDR-TB with those of drug sensitive TB and to determine the characteristic radiological findings of MDR-TB, which would serve as signs to raise the suspicion of MDR-TB in a patient with pulmonary tuberculosis. Hence, they can be referred to gene expert for early diagnosis and treatment.

Materials and methods:

Total of 52 MDR-TB patients (cases) and 200 drug sensitive-TB patients (controls), who had undergone CT chest during the study period were included in the study. Age, sex, history of anti-TB treatment and CT chest findings of both groups were analysed.

Results:

Multiple cavities, thick walled cavities and cavitary consolidation were more commonly observed in MDR-TB patients as compared to the drug sensitive TB cases, with a P value of less than 0.001. When these findings were present, they were numerous and extensive, involving multiple lobes as opposed to the controls in whom predominantly the upper lobes were involved. Pleural effusion was also commonly seen in the multi-drug resistant group with a P value of 0.025. There was no significant statistical difference in incidence of centriacinar nodules, bronchiectasis, atelectasis, consolidation, fibrosis and

pleural thickening. While single cavity was found to be a common feature in drug sensitive cases particularly involving right and left upper lobes.

Conclusion;

The finding of multiple cavities, thick walled cavities, cavitary consolidation especially when seen extensively involving multiple lobes of both lungs should highly raise the suspicion of multi-drug resistance and those patients should be promptly referred to gene-expert to confirm the diagnosis and appropriate treatment can be given.