Frequency of Culture Positive Tuberculosis in Exudative Pericardial Effusion

{Original Article (Medicine)}

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ABSTRACT
**Objective:** To evaluate the frequency of culture positive tuberculosis and to determine the sensitivity of drugs in exudative pericardial fluid.

**Study Design:** Descriptive observational study

**Place and Duration of Study:** This study was conducted on patients admitted in cardiology and Medical wards of Civil Hospital Karachi from 1st November 2010 to 30th April 2011.

**Materials and Methods:** In this study 50 patients of pericardial effusion diagnosed on the basis of history, physical examination, electrocardiography, chest x-ray PA view and echocardiography underwent pericardiocentesis under fluoroscopy. Pericardial fluid D/R was done and all the patients having exudative pericardial fluid (protein 3 gm% and LDH > 200 IU) were selected. All the exudative pericardial effusion were sent for AFB culture and sensitivity on L.J. medium. Inclusion criteria were all patients with the diagnosis of exudative pericardial effusion above 12 years of age of either sex. Exclusion criteria were all patients with transudative pericardial effusion and below 12 years of age.

**Results:** 3(6%) patients had culture positive for mycobacterium tuberculosis on L.J medium. 5(10%) had culture positive of other bacteria of which 2(4%) had culture positive for resistant Staphylococcus aureus, 2(4%) had culture positive for Streptococcus pneumonia and 1(2%) had culture positive for Streptococcus viridans and 42 (84%) patients had culture negative for AFB and other bacteria. Out of 50 patients, 16(32%) were in age group between 20-40 years, 22(44%) were in age group between 41-60 years and 12(24%) were in age group> 60 years. Out of 16 patients having age between 20-40 years, 1(6.25%) had culture positive for AFB, 3(18.75%) had culture positive for other bacteria and 12(75%) had culture -ve for all organism.

Out of 22 patient having age between 41-60 years, 2(9.09%) had culture +ve for AFB, 2(9.09%) had culture for other bacteria and 18(81.81%) had culture negative for all organisms. Out of 12 patients
having age >60 years, none (0%) had culture +ve for AFB, none (0%)

had culture +ve for other bacteria and all 12 (100%) had culture

negative for all organisms.

All 3 patients having culture positive for AFB were found to be sensitive to all antituberculous drugs.

**Conclusion:** The concluded that frequency of culture positivity is only 6% for *Mycobacterium Tuberculosis*, so this should not be the investigation of choice to confirm tuberculous pericardial effusion. However, other parameters should also be looked for in establishing the diagnosis of pericardial effusion like clinical parameters, the prevalence of tuberculosis in relative area , ESR, MT, *Mycobacterium tuberculosis* DNA PCR and *Mycobacterium tuberculosis* culture on BACTEC.

**Key Words:** Pericardial Effusion, Tuberculosis, L J medium

**REFERENCES**


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