

ROLE OF SERUM CA 125 LEVEL IN THE DIAGNOSIS OF PULMONARY TUBERCULOSIS

ASM SHAFIUJJAMAN

Consultant (Medicine), Upazilla Health Complex, Pirganj, Rangpur, Bangladesh. Email:jaman3980@gmail.com

Background: Pulmonary tuberculosis (PTB) persists as a great public health problem in Bangladesh. Although many diagnostic tools are invented but the diagnosis continues to rely on smear microscopy, culture and chest radiography. Other non-conventional approaches include detection of immunological response and the search for biochemical markers. Cancer Antigen 125 (CA-125) was considered a promising one and have been reported in few instances. **Methods:** This study was a hospital based cross-sectional analytical study conducted at department of Medicine in Rangpur Medical college Hospital, Bangladesh for 24-months following approval of the protocol. Total 100 people with pulmonary tuberculosis either smear positive or smear negative gene X pert positive were selected and analysed in this study. Written informed consent were taken from all subjects. After taking written consent from each patient, detailed clinical history, physical examination and relevant investigations including serum CA 125 level were done for every patient. Reflection of CA 125 positivity were calculated on the basis of smear positive and smear negative gene X pert MTB/RIF positive pulmonary tuberculosis. Collected data were noted down in separate case record form. After removing consistency and compilation, final data analysis was done in the statistical program Statistical Package for Social Science (SPSS) version 23.0. P-value of <0.05 was considered to indicate statistical significance. **Results:** Of total 100 patients, mean age was 36.68 ± 12.57 SD (years) with slight male predominance with Male female ratio was 2.13:1. Overall elevated CA-125 was found in 88% cases with mean value 90.82 ± 74.28 IU/mL. Mean level of CA-125 among sputum smear positive cases 74.69 ± 49.51 IU/mL (37-153 IU/mL). Among 50 smear negative gene Xpert positive cases, 24% had serum CA-125 level <35 IU/mL (19.73 ± 11.86 IU/mL) and rest 76% had ≥ 35 IU/mL (134.51 ± 86.74 IU/mL). Smear negative & gene Xpert positive cases has statistically significant higher level of CA-125 cases in comparison to smear positive cases (P-value <0.05). **Conclusion:** More than two thirds of the pulmonary tuberculosis patients had higher level CA-125 and smear negative-Xpert positive cases had significantly higher level than smear positive cases.

Key Words: CA-125, Pulmonary TB, Smear positive, Gene Xpert.

Date received: 25.04.2023

Date of acceptance: 05.05.2023

DOI: <https://doi.org/10.3329/bjm.v34i20.66157>

Citation: Shafiujjaman ASM. Role of Serum CA 125 Level in the Diagnosis of Pulmonary Tuberculosis. Bangladesh J Medicine 2023; Vol. 34, No.2(1) Supplementation: 206