Format: Abstract

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Markers for differentiation of tubercular pleural effusion from non-tubercular effusion.

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Abstract

BACKGROUND: The limitations of the conventional methods for diagnosing tuberculosis (TB) have spurred multi-faceted research activities throughout the world. This study aims to explore the levels of adenosine deaminase (ADA) and interleukins in pleural effusion of tuberculous, malignant, and miscellaneous origin for differential diagnosis of tubercular and non-tubercular effusion.

METHOD: Adenosine deaminase was estimated by kinetic method employing xanthine oxidase while interleukins were measured using commercially available ELISA kits in pleural fluids of tubercular and non-tubercular origin.

RESULTS: Pleural fluids INF-γ, sIL-2R, TNF-α and ADA were significantly higher in TB group (n = 48) as compared to the non-TB group (n = 33) (mean ± SD: INF-γ; 1,958.7 ± 896.5 pg/mL vs 356.9 ± 733.6 pg/mL, sIL-2R; 6,101 ± 1,753.8 pg/mL vs 3,166 ± 2,611.1 ± pg/mL, TNF-α; 195.5 ± 292.1 pg/mL vs 59.7 ± 128.9 pg/mL, ADA; 123.6 ± 81.8 IU/L vs 48 ± 48.5 IU/L, P < 0.01).

CONCLUSION: INF-(is more sensitive and specific than ADA for the diagnosis of TB and should be added to the armamentarium of the diagnostic workup of pleural fluids for timely and accurate diagnosis of TB and differentiation of tubercular pleural effusion from non-tubercular effusion.

KEYWORDS: ADA; interleukins; non-tubercular pleural effusion; tubercular pleural effusion

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