

QUALITY OF LIFE AND TNF-A LEVELS IN MEXICAN PATIENTS WITH TUBERCULOSIS AND MAJOR DEPRESSIVE DISORDER

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Introduction: Tuberculosis (TB) is an infectious disease whose presentation is dependent on host defenses, whereas neuroimmune dysregulations are a feature of major depressive disorder (MDD). There are complex interactions between the immune and nervous systems; Tumor Necrosis Factor alpha (TNF- α) has been shown to play a role in the pathophysiology of both TB and MDD. These diseases are prevalent in Mexico, however there is scant research addressing their comorbidity and related immune mechanisms.

Objectives: Evaluate differences in TNF- α levels and quality of life between subjects with TB and/or MDD.

Methods: Thirty-seven subjects (MDD=10, TB=9, TB+MDD=8, controls=10) were recruited. Instruments used were the SCID-I, Beck Depression Inventory, Hamilton Depression Scale and the World Health Organization Quality of Life survey. A blood sample was obtained from each subject to assess percentage of mononuclear cells positive for TNF- α , using an intracellular cytokines assay.

Results: Highest mean levels of TNF- α were found in the comorbid TB+MDD group (X=10.46, DE=14.59) while the control group had the lowest levels (X=3.26, DE=4.93). However, when comparing all groups, no statistically significant differences were found. Mean quality of life scores were lower in the MDD (X=65.6, DE=5.4) and TB+MDD (X=66.2, DE=14.5) groups. When comparing all groups, there were significant differences between TB vs. MDD ($p=0.013$), TB vs. TB+MDD ($p=0.004$) and MDD vs. control ($p=0.0002$) groups.

Conclusions: No significant differences across groups were found regarding TNF- α levels, while subjects with MDD and TB+MDD showed a worse quality of life.