

The balance between MMP-1 and MMP-8 in tuberculosis may be induce pulmonary injury.

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Matrix metalloproteinases (MMPs) is a group of regulator proteins involved with tissue remodeling in infectious diseases. Human tuberculosis (TB) is characterized by extensive lung destruction driven by host MMPs, particularly collagenases such as matrix MMP-1 and 8. Scarce data are available on the evaluation of MMPs serum levels in TB pathogenesis. In the present study, we prospectively depict the immune profile, microbial clearance and evolution of radiographic lesions in pulmonary tuberculosis (PTB) patient cohort before and 60 days after anti-tuberculous treatment (ATT) initiation. Circulating levels of MMP-1 and MMP-8 were measured by Luminex in cryopreserved serum samples obtained of 82 PTB patients. The analysis presented correlations of MMP-1 and -8, with mycobacterial loads and, the response at radiographic chest image, We did not find association of MMP-1 and MMP-8 with mycobacterial loads before and 60 days after ATT, but higher MMP-1 or lower MMP-8 levels were associated with no radiological improvement. In conclusion, our data showed that MMPs -1/-8 serum levels may be useful to predict the pulmonary involvement during TB treatment. The inverse relation of MMP-1 and MMP-8 and no radiological pulmonary TB suggests the presence of auto-regulatory aspects that warrants further investigation

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