Correlation of sCD4OL level with force vital capacity value in restrictive lung disease of systemic sclerosis patients

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Abstrak

Background: Interstitial Lung Disease is one of the major cause of morbidity and mortality in Systemic Sclerosis. The gold standard to diagnose ILD is using High Resolution Computed Tomography scan. HRCT scan need a lot of cost and not always available, so another diagnosing test is needed as an alternative modality to diagnose ILD. ILD is a restrictive lung disease caused by lung fibrosis which is proved by the decrease of Forced Vital Capacity in spirometry, and followed by the increase of soluble CD40L level in plasma. This sCD40L may become a potential biomarker to evaluate lung fibrosis in SSc patients. The aim of this study is to analyze the correlation of sCD40L levels with FVC score in SSc patients with restrictive lung disease.

Method: This cross sectional study was enrolled by the SSc patient who has restrictive lung disease based on spirometry test, at Rheumatology outpatient clinic dr. Hasan Sadikin Hospital from May 2015 to May 2016. All subject took underwent history, physical examination, spirometry and blood test for sCD40L. Data were analyzed using Pearson correlation.Result There were 38 subjects involved in this study, dominated bywoman 92.1 pecent with mean age 41years. Subjects consist of 22 57,9 pecent with limited SSc, 16 42,1 pecent with diffuse SSc patients and 33 subjects treated with DMARD. Mean sCD40L serum in this study was 6.690,3 pg/mL, with no statistical difference between limited and diffuse type p 0.154. Mean FVC score in this study was 58.2. There was no significant correlation between sCD40L serum with FVC r 0.058, p 0.366. There was weak correlation on DMARD naïve subject between sCD40L serum and FVC r 0.058, p 0.366 but statistically insignificant. There was no significant correlation between sCD40L serum with mRSS r 0,066 p 0,346.

Conclusion: This study founds no correlation between sCD40L with FVC in SSc at dr. Hasan Sadikin Hospital.