

Liver Functions Profile of Tuberculosis Patients in Indonesia During Antituberculosis Treatment

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Introduction. Currently, Indonesia in the third position of the highest number of tuberculosis disease over the world. Due to the long duration of treatment, tuberculosis patients could experience adverse drug reactions. Around 10-20 % tuberculosis patients experienced drug-liver injury, which may cause the decrease of patients' adherence. **Objective.** The objective of this study is to define the profile of liver function of tuberculosis patients during the treatment. **Methods.** We conducted the cohort study, with adult tuberculosis patients treated with the first line of antituberculosis as the inclusion criteria. The pregnant and patients with comorbidities which related to liver function were excluded. We measured the total bilirubin, aspartate aminotransferase (AST) and alanine aminotransferase (ALT) over the 2nd, 4th and 6th months of the treatment. **Results.** We recruited 202 patients, with 58.91% was male patients and the mean age was 39.91 (SD: 17.18) years old. As 9% tuberculosis patients experienced the increased level of bilirubin, AST and ALT, and 50% among them experienced the increased level of bilirubin, AST and ALT start from 2nd month of treatment. The total bilirubin level in 2nd, 4th and 6th months were 0.57; 0.59 and 0.67 mg/dl, respectively. The AST levels were 27, 22, and 26 U/l in 2nd, 4th and 6th months, respectively, and the ALT levels were 21, 19 and 25 U/l in 2nd, 4th and 6th months, respectively. At the end of the treatment around 4.5% tuberculosis patients experienced the high level of bilirubin, AST and ALT. **Conclusion.** The monitoring treatment for tuberculosis patients should be conducted until the end of the treatment, because the level of bilirubin, AST and ALT increased after 6th month treatment.

Keywords: liver; tuberculosis, side effect, Indonesia