Low Rate Of Antituberculosis Drug-Induced Hepatotoxicity In Tanzanian Hospitalized Pulmonary Tuberculosis patients.

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Hepatotoxicity is the most serious adverse effect of tuberculosis (TB) treatment.

Data on the occurrence of TB-treatment related hepatotoxicity in Sub-Saharan Africa is limited.

We conducted a study in Tanzanian hospitalized TB patients and monitored their liver function closely.
• The liver function was monitored during the intensive phase of TB treatment. Alanine aminotransferase (ALT), aspartate aminotransferase (AST) and total bilirubine were determined at baseline and after 2, 4, 6 and 8 weeks of treatment.

• Patients were treated according to the guidelines of the Tanzanian Tuberculosis Program.
Methods (2)

• Liver toxicity was defined as ALT more than five times the upper limit of normal without symptoms of toxicity (jaundice, abdominal pain, nausea, vomiting) or >3 times the ULN with symptoms.
Results

• The maximal ALAT value was 87 U/L and the maximum ASAT was 98 U/L.
• This is not more than two times the upper limit normal (ULN).
• One patient experienced liver toxicity symptoms but did not have increased liver function parameters.
• Ten patients had increased bilirubine levels.
• This was related to hepatitis B (risk ratio 5.7; 95% CI 1.7-18.6).
Discussion & Conclusions

• None of the patients developed hepatotoxicity according to international definitions.

• Only one case of liver toxicity was observed in the study, since the patient experienced symptoms of liver injury in relation to the TB drugs intake.

• This concludes a low rate of hepatotoxicity in African patients.
Future perspectives

• Low incidence of TB-drug related hepatotoxicity paves the way for future drug trials with higher doses of rifampicin to shorten treatment duration.

• Polymorphisms in the liver enzyme genes may be different in African patients hence more studies are warranted.

• To the health centre: important to give patients clear instructions on signs and symptoms of liver toxicity.