

**THE INFLUENCES OF HEPATITIS B
AND/OR C VIRUSES TO ANTI-
TUBERCULOSIS THERAPY IN
PATIENTS COINFECTED
TUBERCULOSIS AND HIV/AIDS**

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BACKGROUND

+ WHO: 10-11 Million TB & HIV/AIDS patients annually

+ Viral B and/or C Hepatitis is a common infection in HIV patients- increases transamine and bilirubin

+ 90% cases of AIDS patients have abnormal liver function



OBJECTIVE

To assess the effect of B and/or C viral hepatitis to anti-tuberculosis therapy in patients coinfecting tuberculosis and HIV/AIDS.



METHODS

- + Analytic cross-sectional study.
- + All patients were diagnosed TB&HIV coinfecting B and/or C viral hepatitis from 09/2004 to 09/2005.



1. Depend on progression of viral hepatitis,
Population was divided into two groups:

Group 1: including TB&HIV patients with latent viral hepatitis (only HbsAg (+) and/or antiHCV (+), normal liver function).

Group 2: including TB&HIV patients with active viral hepatitis (5HBV (+) and/or antiHCV (+), ARN-HCV (+), abnormal liver function).



2. To decide anti-tuberculosis therapy was based on:

(1) liver function:

-**normal**: use whole anti-tuberculosis therapy

-**increase from 1-3 times**: use anti-TB therapy with low dose plus drugs with resolution of liver function disorders; and monitor liver function every 3-5 days.



-increase > 3 times: stop anti-TB therapy immediately; use drugs with resolution of liver function disorders; and monitor liver function every 3-5 days.

(In severe TB, can use temporary SM + EMB).



(2) Allergy to tuberculous drugs:

- No: normal anti-TB therapy
- Yes (e.g: rash, itching...): stop anti-TB therapy immediately, then use antihistamin, and perform tuberculous drug tests.



RESULTS

148 TB&HIV patients with B and/or C viral hepatitis were admitted, in which included:

+ **Group 1:** 56 cases (37,84%) (latent phase)

+ **Group 2:** 92 cases (62,16%) (active phase)



Group 1: 56 cases (37,84%) (latent phase)

+ 42 cases of TB&HIV with B viral hepatitis

+ 14 cases of TB&HIV with C viral hepatitis

Group 2: 92 cases (62,16%) (active phase)

+ 31 cases of TB&HIV with B viral hepatitis

+ 41 cases of TB&HIV with B&C viral hepatitis

+ 20 cases of TB&HIV with C viral hepatitis



*** Evaluate anti-TB therapy:**

Group 1: 56 cases with whole anti-TB therapy,

+ 43 cases (76,79%): good result.

+ 10 cases with liver function increased > 3 times: use SM+EMB temporarily, plus drugs with resolution of liver function disorders

+ 3 cases with allergic signs with anti-TB drugs: stop anti-TB therapy, then use antihistamin, and perform tuberculous drug tests.



Group 2: 92 cases (62,16%) included 2 subgroups:

+ **subgroup 2a:** 43 cases (29,05%) with liver function increased from 1-3 times: use anti-TB with low doses plus drugs with resolution of liver function disorders.

+ **subgroup 2b:** 49 cases (33,11%) with liver function increased >3 times: use SM + EMB temporarily, plus drugs with resolution of liver function disorders.



Subgroup 2a: 43 cases:

- + 21 cases (48,84%): good result.
- + 15 cases with liver function increased > 3 times: use SM+EMB temporarily, plus drugs with resolution of liver function disorders
- + 7 cases with allergic signs with anti-TB drugs: stop anti-TB therapy, then use antihistamin, and perform tuberculous drug tests.



Subgroup 2b: 49 cases:

- + 14 cases with recovery liver function, but still increase 1-3 times, and good result with anti-TB with low doses.
- + 27 cases with unrecovery liver function: continue to use SM + EMB temporarily.
- + 8 cases with allergic signs with anti-TB drugs: stop anti-TB therapy, then use antihistamin, and perform tuberculous drug tests.



Relationship of the progression of viral hepatitis to anti-TB therapy: (*Fisher's exact test*)

Irresponsive risk with anti-tuberculosis therapy in TB&HIV patients with active hepatitis B and/or C viruses were 3,7 times as much as those with latent viral hepatitis and the difference was statistically significant ($P=0,014$; $RR=3,67$; $95\%CI: 1,891-6,533$).



Relationship of the progression of viral hepatitis to drug-induced hepatitis and allergy to tuberculous drugs : (*Fisher's exact test*)

The risk of drug-induced hepatitis and adverse effects with anti-tuberculosis drugs in active viral hepatitis patients with liver functional disorder was 1,98 times as much as latent viral hepatitis patients and this difference was also statistically significant ($P=0,033$; $RR=1,98$; $95\%CI: 0,273-0,881$).



CONCLUSION

B and/or C viral Hepatitis have made the anti-tuberculosis therapy in TB&HIV patients less favorable (**52,7%**).



Thank you for your attention!

