

## Pathological observation of DNA vaccines on mice infected with multi-drug-resistant *Mycobacterium tuberculosis*

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**Objective:** By observing the histopathological changes in lung, liver and spleen of mice, to study the therapeutic effects of DNA vaccines (HSP60 DNA, Ag85A DNA, Ag85A DNA combined with rifampin, chimeric Ag85A/ESAT-6, chimeric Ag85A/ESAT-6 combined with rifampin) in the mouse model of multi-drug resistant (MDR) *Mycobacterium tuberculosis* infection.

**Methods:** Pathogen-free female B/C mice of 6-8 weeks of age were purchased 80 BALB/c mice were infected with strain HB361 by intratail-vein injection HB361, which was resistant to high level of RFP, and low level of isoniazid (INH), and then were divided into 8 groups. After 3 days, the mice were treated by saline, vector Pvx1, rifampin, HSP60 DNA, Ag85A DNA, Ag85A DNA combined with rifampin, chimeric Ag85A/ESAT-6, chimeric Ag85A/ESAT-6, combined with rifampin for 60 days, respectively. The mice were killed after 3 weeks' treatment. We observed the lung, liver and spleen pathological changes and counted the residual TB in spleen by acid-fast staining.

**Results:** The Pathological condition of lung, liver and spleen in mice treated by DNA vaccine were better than the control groups, especially the Ag85A DNA groups and Ag85A DNA combined with rifampin group. Also the residual TB of the Ag85A DNA groups and Ag85A DNA combined with rifampin group were least in spleen.

**Conclusions:** We can evaluate the therapeutic effects of DNA vaccine objectively and accurately according to the histopathological changes in lung, liver and spleen. And the results show that Ag85A DNA vaccine could be an effective agent to therapy the mouse infected by MDR-TB.

### Biography

Yu Qi has completed her M.D. at the age of 27 years from Medical School of Chongqing University. She is the associate senior doctor. She has published more than 15 papers in academic journal.

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