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# STUDY OF THE IMMUNE RESPONSE IN PATIENTS WITH UVEITIS AND LATENT TUBERCULOSIS

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## PURPOSE

Mycobacterium tuberculosis infects up to 30 % of the population worldwide. In the majority of the cases, a lifelong immune response, based on the production of IFN $\gamma$  by CD4+ lymphocytes, restricts the infection into lung granulomas. A deregulation of T regulatory cell function has also been implicated. It has been postulated that this constant immune response might contribute to certain forms of tuberculosis associated uveitis (hypersensitivity uveitis). The aim of this work is to analyse the lymphocyte production of IFN $\gamma$  and the percentage of regulatory T cells in sight threatening uveitis patients with or without latent tuberculosis.

## METHODS

Patients with sight threatening uveitis suspected to be related to tuberculosis or to autoimmune disease will be recruited at the CHU St-Pierre. Patients will be included if the work-up is compatible with the diagnosis of tuberculosis related uveitis or autoimmune uveitis used as a control. Signed informed consent will be obtained and blood samples will be taken. IFN $\gamma$  production in response to different mycobacterial peptides will be measured by QuantiFERON<sup>TM</sup>-TB Gold in-tube and by ELISA. IL-

17 will be quantified by ELISA and the percentage of T regulatory cells analysed by flow cytometry (CD3+CD4+ CD25high, CD127low, FOXP3+).

## CONCLUSIONS

The diagnosis of tuberculosis uveitis is a clinical challenge. The disease is probably mediated through infectious and immune mechanisms. By studying the CD4+ and regulatory T lymphocytes function in patients with uveitis and latent tuberculosis, we hope that we will better understand this pathology. In addition, this study will evaluate the usefulness of QuantiFERON<sup>TM</sup>-TB Gold in-tube in the evaluation of patient with uveitis

## REFERENCES

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