Risk of Hepatitis B Virus reactivation in patients receiving immunosuppression for uveitis: A Case Series

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Purpose

Oral Prednisolone at doses of **≥20 mg for ≥4 weeks** is a well-documented risk factor for re-activation of chronic HBV (cHBV), especially in combination with immunosuppressants.

Risk of iatrogenic cHBV reactivation in ophthalmology has not been reported.

This retrospective case series describes cases of Uveitis with cHBV on Prednisolone and concurrent immunosuppressants to highlight the role for **pre-treatment risk stratification** for ophthalmologists.

Methods

Our tertiary centre database was screened for uveitic patients receiving immunosuppressants and had previous cHBV for inclusion.

Patient records were retrospectively analysed and baseline patient characteristics, therapeutic, and serological data collected.

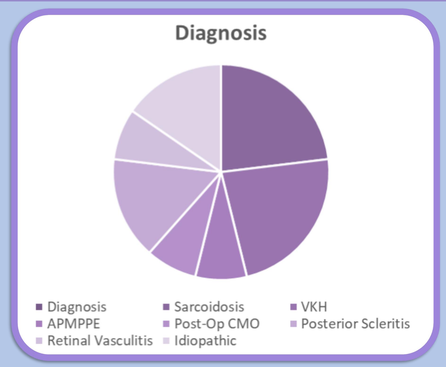


Figure 2: Patient Diagnosis.

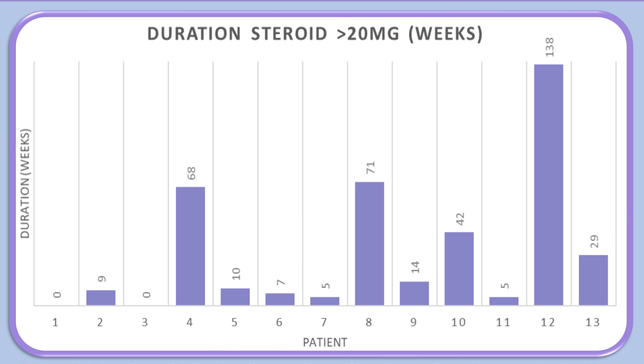


Figure 1: Bar chart displaying the number of weeks each patient received >20mg Steroid

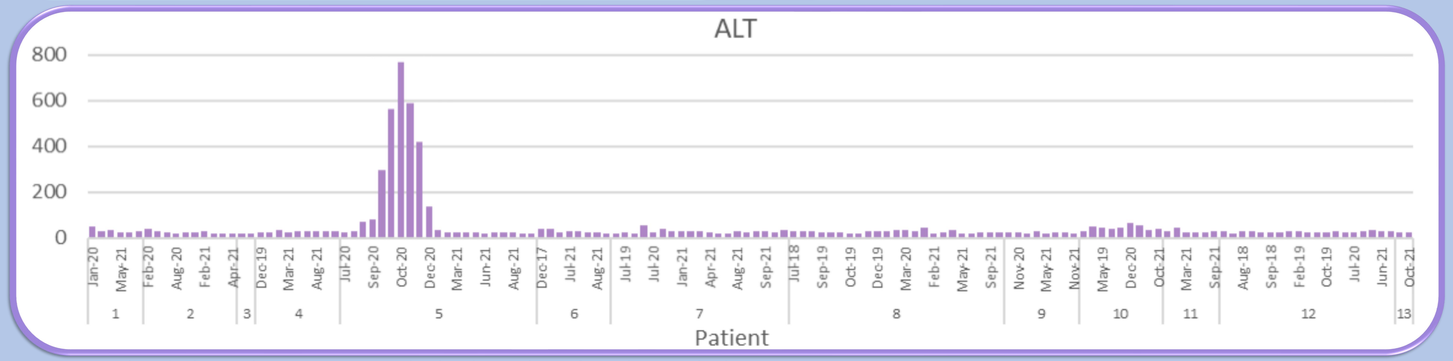


Figure 3: Bar Chart displaying Alanine Transaminase (ALT) and Steroid Dose for each patient by date.

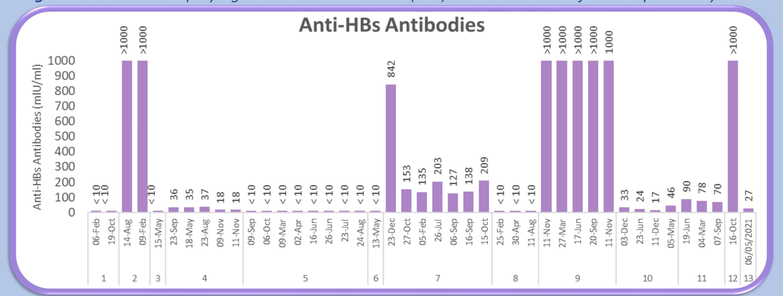


Figure 4: Graphical representation of Anti-Hbs Antibodies present on serological testing by patient and date.

Conclusion

This study demonstrated that Prednisolone can cause reactivation of cHBV in ophthalmology; our **7.7%** Hepatitis B reactivation rate is in keeping with the **literature (<10%).** Further higher-powered studies are warranted to identify causality and other independent predictors of reactivation in an ophthalmic patient population.

Results

Patient Characteristics

13 uveitic patients (8 female and 5 male) were included. Median age was 42 (±16.8). Sarcoidosis n=3 (23.1%) and VKH n=3 (23.1%) were the most represented uveitides. (Figure 2)

Therapeutic Data

11 patients (84.6%) received Prednisolone ≥20 mg for ≥4 weeks. (Figure 1) Median duration in weeks of Prednisolone >20mg was 10 (±37**). Average maximum Prednisolone dose at each prescription was 60mg (±5)**. 6 patients (46.2%) were on Adalimumab. All patients were on immunosuppressants.

Serological Data

Of the 13 patients, one (7.7%) patient had reactivated HBV (rHBV) with a positive HbsAg. (Figure 4) This patient with rHBV (patient 5), the alanine transaminase (ALT) level increased by 2858% to an ALT of 769 IU/L, which resolved on Entecavir. 2 patients (15.4%) received anti-HBV therapy. (Figure 3)

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