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Frequency of hepatitis B virus infection among patients with rheumatoid arthritis: a study from a Tertiary Care Center in Peshawar

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ABSTRACT

Background and Objective: Understanding the prevalence is essential for developing guidelines for screening and managing hepatitis B virus in patients with rheumatoid arthritis (RA), particularly in settings like Peshawar, where the burden of both diseases is likely to be high and viral infectivity may rise because of immunosuppression induced by anti-rheumatoid therapy. Therefore, this study was conducted to determine the frequency of hepatitis B virus (HBV) infection among patients with RA presenting at a tertiary care hospital in Peshawar.

Methods: A cross-sectional study was conducted on 231 patients diagnosed with RA. Diagnosis was confirmed using clinical assessment and laboratory investigations, including rheumatoid factor and anti-CCP. All laboratory tests were performed in a single hospital laboratory under the supervision of a senior pathologist. HBV infection was confirmed using a third-generation ELISA for HBsAg with a cut-off value of 2.0. An independent *t*-test was applied keeping $p < 0.05$ as statistically significant.

Results: The age range of patients was 18-60 years with 43% males and 57% females. The use of DMARDs was reported by 58% patients, while steroid alone was used by 66% patients. HBV testing revealed that only 4% patients had positive and active hepatitis B virus infection. No statistical significance ($p > 0.05$) was observed between HBV infection and age, gender, or type of treatment.

Conclusion: The frequency of RA patients infected with hepatitis B was very low in population from Peshawar. However, there is a need to screen hepatitis B virus in all patients undergoing anti-arthritis therapy for improving early diagnosis and management in such cases.

Keywords: Hepatitis B, rheumatoid arthritis, immune suppression.

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