

PSORIASIS

THE PREVALENCE OF JOHN CUNNINGHAM (JC) VIRUS ANTIBODY POSITIVITY IN PSORIASIS PATIENTS.

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Background: John Cunningham virus (JCV) is a dsDNA polyomavirus found in approximately 30-70% of the population.1 Reactivation of JCV infection occurs in the context of immunosuppression and can rarely lead to progressive multifocal leukoencelopathy (PML). There are rare case reports of PML occurring during fumaric acid therapy and biologic therapy for psoriasis2. Patients who have not been infected with JCV cannot develop PML.

Objective: Our primary aim was to assess the seroprevalence of JCV and the prevalence of JC viruria in a psoriasis population.

Materials and methods: 252 patients with moderate to severe psoriasis patients were tested for IgG class antibodies against JCV. The first cohort (117) were on systemic therapy and biologics; the second cohort (66) were on fumaric acid esters; and the third cohort (69) were not on systemic therapy. Urine for JC virus PCR analysis was obtained in 89 patients.

Results: 61 patients with psoriasis on systemic therapy/biologics (52%) had antibodies to JCV; 33 (50%) patients on fumaric acid esters and 31 (48%) patients who were not on systemic therapy, were seropositive for JCV. Urinary PCR for JCV DNA (n= 89) was positive in 19 patients (21%) of those patients on systemic therapy.

Conclusion: Based on our data, psoriasis patients have a similar prevalence of JC virus infection compared to the normal population. There was no significant difference in seroprevalence rates between those on systemic immunosuppressive agents, fumaric acid esters, or those not receiving systemic therapy. The prevalence of viruria was similar to that reported previously 3.

Systemic immunosuppression and/or treatment with fumaric acid esters does not appear to











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increase the risk of JCV infection. Longitudinal studies are needed to ascertain whether JCV infection status, and/or reactivation rate may be useful for PML risk stratification in psoriasis patients who require systemic therapy.



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