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Letter to the Editor

Hepatitis C Infection in Egyptian Psoriatic Patients: Prevalence and Correlation with Severity of Disease

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Dear Editor-in-Chief

Egypt is one of the highest hepatitis C virus (HCV) prevalent areas worldwide (10- 20% of the general population) (1) and some investigators have reported an association between psoriasis and HCV infection (2). Based on these facts, we set to estimate the prevalence of HCV infection and its genetic diversity among Egyptian psoriatic patients in comparison to the normal population.

One hundred psoriatic patients and 200 healthy volunteers were screened for HCV by detection of anti HCV antibodies using enzyme-linked immunosorbent assay (ELISA); further real time-polymerase chain reaction analysis was performed for HCV seropositive patients for detection of HCV Genotype. The prevalence of HCV infection was significantly higher among psoriatic patients compared to controls (19% vs 8.5% respectively) ($P<0.05$). HCV seropositive psoriatic patients had exhibited more severe degrees of psoriasis, as measured by PASI score, with significant longer duration of systemic treatment for psoriasis ($P<0.05$), in addition to significantly higher liver enzyme levels than the seronegative psoriatic patients($P<0.05$). HCV genotype IV was the commonest genotype in both groups.

Our findings together with those of other researches (2, 3), support the suggestion that HCV infection can be an inducing factor for psoriasis in genetically predisposed individuals. We as well as other investigators point to the impact of HCV infection upon the severity of psoriasis (3, 4) which may be due the effect of HCV infection on the immune system. The significant higher levels of liver enzymes among HCV seropositive psoriatic patients in our work may be due to the hepatotoxic systemic drugs used to treat psoriasis, or the high levels of interferons in psoriatic patients (5); which maintain the survival of activated T cells at sites of chronic inflammation, including the liver (6).

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References

1. Hatzakis A, Van Damme P, Alcorn K, Gore C, Benazzouz M, Berkane S (2013). The state of hepatitis B and C in the Mediterranean and

Balkan countries: report from a summit conference. *J Viral Hepat*, 20 Suppl 2:1-20. doi: 10.1111/jvh.12120.

2. Taylor C, Burns D, Wiselka M (2000). Extensive psoriasis induced by interferon alfa treatment for chronic hepatitis C. *Postgrad Med J*, 76: 365-7.
3. Brazzelli V, Carugno A, Alborghetti A, Cananzi R, Sangiovanni L, Barbarini G, De Silvestri A, Borroni RG (2012). Hepatitis C infection in Italian psoriatic patients: Prevalence and correlation with patient age and psoriasis severity. *J Eur Acad Dermatol Venereol*, 26: 1581-2. doi: 10.1111/j.1468-3083.2011.04360.x. Epub 2011 Dec 6.
4. Andrade DL, Lima RA, Bomfim EA, Schinoni MI (2012). A study about hepatitis C virus infection in patients with psoriasis in a Brazilian reference center. *Acta Gastro enterolLatinoam*, 42: 285-90.
5. Chery M, Ann-Marie T, Brian K (2011). Innate immunity in the pathogenesis of psoriasis. *Arch Dermatol Res*, 303: 691–705.
6. Akbar A, Lord J, Salmon M (2000). IFN-alpha and IFN-beta: a link between immune memory and chronic inflammation. *Immunol Today*, 21: 337-342.