



Interleukin 10, Tumor necrosis factor α , and Interferon γ levels in herpes zoster patients in Babylon– Iraq

*Zainab A. Tolaifeh¹, Habeeb S. Naher², Mohammed K. Alhattab³

¹University of Babylon, College of Science for Women, Department of Biology, Iraq

²University of Babylon, College of medicine, Department of Microbiology, Iraq

³University of Babylon, College of medicine Department of Dermatology, Iraq

Abstract : Varicella-zoster virus (VZV) is the causative agent of varicella (chickenpox) and herpes zoster (shingles). Primary VZV infection is thought to happen via the inhalation of virus either in respiratory droplets or from shedding varicella lesions or by direct contact with infectious vesicular fluid. The immune responses act to eliminate replicating virus during varicella, but not all virus is cleared during this time, with some presumed to access nerve axons in the skin, enabling transport to neurons in sensory ganglia where the virus is able to establish a lifelong latent infection. When immunity declines, the virus reactivates causing herpes zoster (shingles). Fifty patients with herpes zoster attending Marjan Hospital in Babylon – Iraq, and thirty healthy control were subjected for this study. Serum samples were collected from patient and from healthy control. All samples were investigated for measuring the level of IL10, IFN γ and TNF α cytokine by ELISA to investigate their role in the immune-regulatory mechanisms involved in reactivation of latent VZV. The results showed that the highest proportion of herpes zoster infection within age group (41-60) by 23 (46%). Also there is significant rise in the levels of IL10 (12.12 ± 5.59) pg/ml of shingles patients when compared with the healthy control group (4.74 ± 0.90) pg/ml, while the levels of IFN γ and TNF α were significantly lower in patients (184.31 ± 21.95 , 51.55 ± 5.14) pg/ml respectively when compared with healthy control group (218.03 ± 26.21 , 62.35 ± 6.74) pg/ml respectively.

Key words : Shingles, Cytokines, IFN γ , Varicella zoster virus, Herpes zoster, ELISA.

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