

P-selectin as a biomarker in patients infected with *Giardia lamblia* parasite in Al-Najaf Governorate

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Abstract: The study was conducted on 450 out suspected patients and twenty two healthy persons, whom have meant the laboratory of AL-Hakeem hospital and AL-Zahra maternity and pediatrics in AL-Najaf province from October, 2015 till March 2016. This study was designed to determine the effects of *Giardia lamblia* infection on some biomarkers such as P-selectin, IL-8, IgE, iron and ferritin levels.

Whereas the numbers and percentage of infected patient were 44 (9.77%) vary with different sex 28 (6.22%) male and 16 (3.55%).

The results showed a significant decrease ($P < 0.05$) in serum concentration of IL-8, ferritin and iron in male and female infected with *G. lamblia* parasite in compared to control group, (44.30 ± 1.21 pg./ml), (751.7 ± 32.012) respectively in compared to the control group (13.56 ± 0.721 pg./ml), (1721 ± 89.153 pg./ml) respectively, ferritin was (14.91 ± 1.997) and (20.55 ± 3.6) respectively compared with control group (185.7 ± 52.25) and (180.6 ± 43.09) respectively, iron was (42.18 ± 4.802) and (44.19 ± 8.352) respectively compared with control group (206.5 ± 8.918) and (164.8 ± 38.58) respectively, whereas serum concentration of p-selectin and IgE was significantly increased ($P < 0.05$) in *G. lamblia* infection patients in compared to control group which the level of p-selectin in male and female were (60.65 ± 3.42) and (77.52 ± 3.86) respectively compared with control group (42.3 ± 4.63) and (57.04 ± 4.79) respectively, whereas the level of IgE in male and female were (382.2 ± 55.77) and (519.2 ± 40.45) respectively compared with control group (173 ± 51.2) and (164.8 ± 38.58) respectively. The current study has concluded that the infection with *G. lamblia* effect on some immunological and physiological biomarkers of human represent by IL-8, IgE, iron, ferritin and p-selectin. Also the p-selectin as a good biomarker may be used in detection of *G. lamblia* parasite.

Key word: giardiasis, Najaf, P-selectin, ferritin, IL-8.