



Effect of the Experimental Infection with *Toxoplasma gondii* on some Biochemical aspects and Histological Changes for the Liver and Spleen in Female Rats

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Abstract : *Toxoplasma gondii* is an intracellular protozoa, widespread throughout the world, and it has the ability to infection many organs in the body such as the liver and spleen.

Ten rats divided into two groups, first group was control group that treated orally with distilled water and second group was infected with suspension of parasite (tachyzoite) that isolated from placenta, the animals killed after twelve weeks of occurrence of the infection. The results showed significant increase in the levels of enzymes (AST, ALT), and the levels of total blood protein and levels of globulin and bilirubin in the serum of the rats infected when comparing with the control group, but the results showed a significant decrease in the concentration of albumin and total cholesterol level in the serum when compared with the control group. The results also showed for changes in liver tissue represented congestion, degeneration and necrosis of the liver cells with cellular infiltration of the inflammatory cells and sinusoid dilation between the liver plates because of tissue sacs for the parasite, which was also observed changes in the spleen tissue and Occurrence of hypertrophy of lymph nodes. The aim of this study was to detect the effect of toxoplasmosis on some liver functions such as the levels of enzymes alanine aminotransferase (ALT) and aspartate aminotransferase (AST), in serum and the levels of total blood proteins like albumin, globulin, in addition to levels of cholesterol and bilirubin in the serum female rats. This study also included the impact of the parasite on histological structure for each of the liver and spleen.

Key words: *Toxoplasma gondii*, AST,ALT, Albumin, Cholesterol and histological changes in liver and spleen.