

Giardiasis in Streptozotocin– Induced Diabetic C57BL/6 mice

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ABSTRACT

Giardia lamblia an intestinal flagellated protozoan parasite that may give rise to diarrhea with or without malabsorption. Streptozotocin

(STZ) is a broad – spectrum antibiotic that is toxic to the insulin β cells of pancreatic islets and has been used investigationaly in a wide variety of large and small animal species. Parasitological and histopathological studies were done on the course of *G. lamblia* infection through the streptozotocine - induced diabetic C57BL/6 mice this was done through intragastric infection by ± 200.000 *G.lamblia* cyst, the results revealed in non-diabetic vs diabetic group; the infection rate was 86.6% vs 96.2%, the prepatent period (4.04 ± 1.06 vs 2.8 ± 0.84), death rate (4.28% vs 50%), The maximum cyst excretion rate was (71.8 ± 3.91)/2hours at day (11) then decline to disappeared by day (21), While in diabetic group the maximum cyst excretion was (90.2 ± 1.9) / 2 hours on the day (9) with a significant increase in the mean excreted cysts count /2hours till the end of the experiment respectively. Aggravated histopathological changes of the liver were observed in diabetic compared to non-diabetic mice as hydropic and fatty degeneration inflammatory cells infiltration and in the invading number of the parasites. It could be concluded that experimentally there is an element of immunosuppression evokes by diabetes and further studies will be in need.

KEYWORDS: *Giardia lamblia*, *Streptozotocin* diabetes.