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Histopathological changes in the Intestine and lung of mice infected experimentally with Salmonella mbandaka

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Abstract

Salmonella mbandaka has been isolated and identified from human in Iraq. The purpose of the present study was to investigate the histpathological changes in the internal organs of mice experimentally infected with *Salmonella mbandaka*. Thirty mice of both sexes with age range (6 – 8) weeks old were divided randomly into two groups: "group A" (15 mice) inoculated orally with infective dose (ID) (1.3×10^7 cells) and "group B" (15 mice administrated orally with 0.5 ml PBS) and considered as a control group. Both infected and non-infected mice were Sacrificed after 1 week ,2 ,4 ,6 and 8 weeks post inoculation. After 1 &2 weeks post infection, results revealed a slight desquamation of intestinal mucosal epithelia together with tissue debris accumulated in lumen accompanied by hyperplasia and hyper atrophy of goblet cell, sub mucosal edema accompanied with blood vessels congestion surrounded with intense cellular infiltration. PMNs infiltration mainly in mucosa and sub mucosa of intestine and around bronchi associated with congested blood vessels in lung. While the characteristics manifestations during 4, 6 & 8were lymphoid hyperplasia of intestine tissue together with MNC pervious aggregation in lung. In conclusion, this study revealed a different changes in organs of mice infected with *S. mbandaka* , this indicate the virulence of this bacteria to cause a disease in mice and its ability to invade and replicate in intestine and lung.

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