HEPATOPROTECTIVE OF TOMATO PASTE ON THE EXPRESSION OF IL-2, ACTIVATION OF KOEPFFER CELLS AND LEVEL NECROSIS OF MICE (*Mus musculus*) LIVER EXPOSED TO BORAX

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ABSTRACT

The aim of this study was to examined the protective effect of tomato paste on histopathological changes of the liver exposed by borax. Totally of thirty six healthy male mice aged ± 2 months with a body weight of 20 grams used in this study. The mice were devided into six treated groups for 17 days, the first three days were as follows : P0 groups was given sterile aquadest as much as 0.1 ml /20 g BW / day, P1 was given borax as much as 5.6 mg /20 g BW / day, P2 was given tomato paste as much as 230 mg /20 g BW / day and (P3), (P4), (P5) were prevented group given tomato paste each daily dose of 110 mg /20 g BW, 230 mg /20 g BW, and 350 mg / 20 g BW. The next 14 days, (P3), (P4), (P5) groups were daily exposed to borax as much as 5.6 mg / 20 g BW while (P0), (P1), (P2) were continuous treated as previously. On the 18th day, the mice were killed by cervical dislocation tan followed by collecting liver sampels. The results of this study showed that lycopene in tomato paste has high potential protection in liver from borax. The activation of Koepffer cell and IL-2 expression was decrease, and it supported by elevation of necrosis rate. It can be concluded that P5 gave the best protection for the liver exposed to borax.

Keywords: tomato paste, borax, liver, Kupffer cell, IL-2