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Tetrachloromethane (CCl4)-induced liver deterioration in rats with effects of the phytochemical in loquat (Eriobotrya japonica) leaves

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ABSTRACT:

The fruit tree Eriobotrya japonica (EJL) performs a variety of essential functions. The current article's target was to establish the hepatoprotective effects of the phenolic and flavonoid constituents in loquat leaves (E. japonica); versus CCl4 in rats. In this study, thirty male albino rats averaging 190± 10 g were separated into two main sets: first G (-ve) was fed on a basal diet for 4 weeks and the remainder were injected by CCL_4 for induction liver injury twice weekly for 4 weeks, there are all treatment rats divided into 4 sub-groups. Second G was fed a basal diet with CCL_4 injection (2 mg /kg) (+ve) control and sets (3,4,5) fed different dried Eriobotrya japonica levels at (50,100 and 150 g/kg diet). The findings revealed that all indicators have highly significantly increased (malondialdehyde MDA, liver enzymes, lipid parameter) after CCL_4 injection, but when added EJL at different levels, all parameters were highly significantly decreased when compared with positive G, and the decreasing level was accompanied with increasing the EJL levels, this due to the phenolic and flavonoids compounds of EJL. The same effects were noticed in histological results. Bread sensory evaluation revealed the good palatability of these leaves, which could be used as ameliorating products for liver injury.

Keywords: *EJL* – flavonoids – tannin – MDA – liver function.