

## **Therapeutic Role of Polygonum bistorta and Zingiber roseum by in vivo and in vitro Study**

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**Abstract :** The present study was carried out to observe the hepatoprotective effect and antioxidant activity of the aqueous extract of the roots of Polygonum bistorta (PB) (200 mg/kg) and Zingiber roseum (ZR) (250 mg/kg) in rats treated with carbon tetrachloride (0.15 ml/kg, i.p.). Extract of PB and ZR at the tested doses restored the levels of liver homogenate enzymes, glutathione peroxidase, glutathione-S-transferase, superoxide dismutase and catalase enzymes, significantly. The activities of MTT assay significantly recovered the damage and supported the biochemical observations. This study suggests that Zingiber roseum has a higher protective effect on liver, compared to Polygonum bistorta, against carbon tetrachloride-induced hepatotoxicity and possesses antioxidant activities. Also, extracts exhibited moderate anticancer activity towards cell viability at higher concentration.

**Keywords :** Polygonum bistorta, Zingiber roseum, hepatoprotective effect, carbon tetrachloride, anti-cancerous

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