



## *Emblca officinalis* Reduces the Initiation of Oxidative Stress by *Salmonella typhimurium* in Mice and Can be Used in Typhoid

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**SUMMARY.** Typhoid fever remains an important cause of illness globally with the annual incidence at 21 million cases, of which many end fatally. Due to increasing resistant to antibiotics and limited available vaccine against salmonella, the requirement is to explore the plant products against this disease. Mice pretreated with lyophilized juice of *Emblca officinalis* (EO) orally at a dose of 500 mg/kg (EO500) body weight for 20 and 30 days showed full protection against 1X100000 CFU and 2X100000 CFU of *S. typhimurium* respectively. Mice pretreated with EO500 for 30 days and then challenged with 50000 CFU of *S. typhimurium* intraperitoneally showed reduced CAT and LPO activity by 6.8% and 98%, respectively and increased GSH activity by 67% as compared to saline infected control. The experimental data indicated that regular intake of EO inhibit the induction of oxidative stress by *S. typhimurium* in mice and may reduce the risk of getting typhoid fever.

**KEY WORDS:** Catalase, *Emblca officinalis*, GSH, LPO, Oxidative stress, Typhoid.

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