

Title:	A process for the preparation of antiulcer powder from swallow root (<i>Decalepis hamiltonii</i>)
Abstract :	<p>Polysaccharide fraction of swallow root (<i>Decalepis hamiltonii</i>) -SRPP were examined for potential ulcer preventive effect by determining its ability to inhibit parietal cell H⁺,K⁺-ATPase which is a key enzyme in enhancing H⁺ levels in the lumen of the stomach causing acidity leading to gastritis and ulcer. Pectic polysaccharide offered inhibition to H⁺,K⁺-ATPase enzyme activity at an IC₅₀ of 77 µg / mL as apposed to that of 19.3 µg / mL of Lansoprazole a known antiulcer drug. Further pectic polysaccharide was examined for its ability to protect experimental animals against swim / ethanol stress induced ulcers. Data revealed that the stomach was protected up to 88 % against ulcers as measured by ulcer index. Further 2.5 fold decrease in mucin level and 2.1 fold upregulated levels of hT,K⁺-ATPase enzyme in ulcerous animals were normalized in a concentration dependent manner upon ingestion of ~ 100 and 200 mg kg⁻¹ b.w.</p> <p>Antiulcer potential of SRPP was substantiated by elucidating the mechanism of action of SRPP. SRPP protected damaged mucin layer around parietal cells as evidenced by histological as well as dye binding methods. Upregulation of mucin content to 2.5 fold was confirmed by</p>

monoclonal antibody based enzyme linked immunosorbent assay (ELISA). Further 2 - 3.2 fold depleted levels of antioxidant - GSH and antioxidant enzymes - catalase, SOD and Glutathione peroxidase etc. were also normalized upon treatment with SRPP *in vivo*. In addition SRPP exhibited antioxidant activity with a free radical scavenging ability at an IC 50 ~ 40 ng/mL and expressing reducing power ability (3240 units/g). Data thus suggested that oral ingestion of SRPP could prevent ulcer effectively.