

**Herbal Traditional 2019: EVALUATION OF ANTI-ULCER ACTIVITY OF ETHANOLIC EXTRACTS OF INDIGOFERA TINCTORIA ON ALBINO RATS- SAMUEL THAVAMANI B - Sanjo College of Pharmaceutical Studies, India****Samuel thavamani B***Sanjo College of Pharmaceutical Studies, India*

Ulcer is the most common prevalent gastro intestinal disorder, which affects approximately 10 -15% of people in the world. It makes major global health problem today. Ulcer is a open sore, it can be developed inside the inner lining of the stomach (gastric ulcer) or the small intestine (duodenal ulcer). Both the ulcers are also commonly referred as peptic ulcers. The present study was carried out to investigate anti-ulcer activity of Ethanol extract of Indigofera tinctoria on albino rats. The present study was carried by pylorus ligation induced ulcer models in albino rats. The antiulcer activity of ethanol extracts of Indigofera tinctoria (125, 250 mg/kg p.o. 7 days) was compared with standard drugs (Famotidine). In pyloric ligation induced ulcer model, the studied parameters were gastric volume, pH, total acidity, ulcer score, and ulcer index. In pyloric ligation model; the volume of gastric content, total acidity, ulcer score were significantly decreased at  $p < 0.01$  and pH of the gastric juice was significantly increased at  $p < 0.05$  in EEIT treated groups as compared to control group. All the doses of EEIT showed dose dependent antiulcer effect as well as significant ( $p < 0.01$ ) reduction in the ulcer index as compared to control group in all the experimental models. The ethanol extract of EEIT at 250 mg/kg has more potent antiulcer activity than 125 mg/kg of ethanol extract of EEIT. The results of the study indicate that the EEIT has better potential against ulcer which supports the traditional claims in folklore medicine.

Astria mucosal ulceration is that the foremost typical adverse effect with NSAIDS. Antacids, H<sub>2</sub> blockers and PPIs are considered novel in treating ulcers but don't seem to be innocent of side effects. Hence, there a requirement for a drug which is effective against NSAID induced ulcers with no side effects. Coccinia grandis plant is consistently used for the treatment of gastric or peptic ulcers. Accordingly, this study has

been initiated to scientifically substantiate the antiulcer activity of Coccinia grandis leaves adjacent indomethacin convinced ulcer model. Ulcer can be a heavy disease of system which affects 10% of the globe population with different aetiologies. Chronic alcohol intake, smoking, excessive stress, chronic usage of non-steroidal anti-inflammatory drugs and H.pylori bacterial infection are the crucial causes of ulceration characterized by inflammation, mucosal bleeding and abdominal pain in patients. These ulcers can establish when the disturbance occurs between the gastroprotectives and aggressives. The contemporary approach to ulcer is handled by prevention of gastric acid excretion, advancement of gastro-protection, inhibiting apoptosis & activation of somatic cell proliferation for better healing. the standard drugs utilized within the treatment of ulcer include histamine receptor antagonists, prostaglandins analogues, proton pump inhibitors, cytoprotective agents, antacids and anticholinergics, but most of those drugs produce undesirable side effects or drug interactions and can even alter biochemical mechanisms of the body upon chronic usage. Hence, herbal medicines are generally employed in such chronic cases, wherein drugs are required to be used for long periods. ulceration was caused by giving ibuprofen and by pylorus ligation method. The animals used for the experiment were divided into 4 groups for every model, 6 rats in each group. In pylorus ligation model, all groups of rats were treated with test drugs, Group-I received 2% gum acacia 2ml/100g, Group-II received Ranitidine (60mg/kg.) as well as group-III, IV were initiated with Ethanolic extracts 150mg/kg, 300mg/kg. respectively orally 30mins before pylorus ligation. The Antiulcer activity of Momordica Dioica was appraised by concluding and approaching gastric volume, free acidity, pH, percentage of ulcer protection and ulcer index. In ibuprofen induced ulcer model, all groups of rats were treated with test drugs for 7 days before

ibuprofen induced ulcer. Animals were differentiated into 4 groups then treated with drugs as in mentioned model. After 7 days of treatment, animals were fasted for twenty-four hrs. Ulcers were induced by giving ibuprofen on the day of surrender. The animals were surrendered 4 hours later & stomachs were open along the highest curvature & ulcers were detected. peptic ulcer is additionally a chance within the tissue lining of the stomach. Most ulcers are cured without complications; however, in some cases peptic ulcers can develop, like in penetration, perforation, bleeding (hemorrhage), and obstruction. Ethanol and aspirin-induced ulcer models are widely used for the evaluation of gastroprotective activity. Acute treatment with ethanol enhances oxidative stress, xanthine oxidase activity, DNA damage & malondialdehyde levels, and reduces the whole glutathione content in gastric mucosal cells. Aspirin induced ulcer is conciliated through tissue injuring free radicals which are evolved from the changing of hydroperoxyl to hydroxy fatty acids, which lasts in cell destruction. It's been detect that oxygen-derived free radicals are situated within the mechanism of acute as well as chronic ulceration within the gastric mucosa & scavenging these free radicals can involve an appreciable role in healing the ulcer. Before the introduction of potent antiulcerogenic agents, i.e., H<sub>2</sub>-receptor antagonist, proton pump inhibitors, etc., plant remedies were widely employed for the treatment of assorted symptoms of ulcer. There has been improved interest in detecting new antiulcer drugs from natural sources. wild passion fruit L. (Passifloraceae), generally considered as green groceries, is an exotic rapid growing perennial climber evolving in USA & extended to India. Traditionally, the plant has been utilise for its characteristics like antiproliferative, sedative, anti-anxiety, antibacterial, leishmanicidal, antispasmodic, emetic, dressing for wounds & antiulcer. during this preliminary study, an effort has been made to guage the implications of P. foetida whole plant on experimentally induced gastric ulcers. Ulcer is that the foremost typical prevalent gastro intestinal disorder, which affects approximately 10 - 15% of individuals within the world. It makes major global status today. Ulcer is an open sore, it'll be developed inside the inner lining of the stomach

(gastric ulcer) or the miscroscopic intestine (duodenal ulcer). Both the ulcers are commonly said as peptic ulcers. Objectives: the current study was applied to research the anti-ulcer activity of Ethanol extract of indigo on albino rats. Materials and Methods: the current study was administrated by pylorus ligation induced ulcer models in albino rats. The antiulcer activity of ethanol extracts of indigo plant (125, 250 mg/kg p.o. 7 days) was compared with standard drugs (Famotidine). In pyloric ligation convinced ulcer model, the observed parameters were gastric volume, pH, total acidity, ulcer score, and ulcer index. Results: In pyloric ligation model; the amount of gastric content, total acidity, ulcer score were significantly decreased at  $p < 0.01$  and pH of the juice were significantly increased at  $p < 0.05$  in EEIT treated groups as compared to manage group. All the doses of EEIT showed the dose-dependent antiulcer effect additionally as significant ( $p < 0.01$ ) reduction within the ulcer index as compared to manage group altogether the experimental models. The ethanol extract of EEIT at 250 mg/kg has stiffer antiulcer activity than 125 mg/kg of ethanol extract of EEIT. Conclusion: The results of the study indicate that the EEIT has better potential against ulcer which supports the normal claims in folklore medicine.