

**“EVALUATION OF THE EFFECT OF THE *ABUTILON INDICUM LINN.* IN
EXPERIMENTALLY INDUCED ACUTE PANCREATITIS IN RATS”**

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ABSTRACT

Objectives: Evaluation of the effect of the *Abutilon indicum Linn.* in experimentally induced Acute pancreatitis in rats.

Material and methods: Thirty Wistar rats of either sex were divided into five groups with 6 rats each: Group-1 served as a Normal control (NC) which receive vehicle (0.5% CMC) and other group will receive L-arginine (2 × 250 mg/100 gm body weight, intraperitoneal, 1 h apart). Group-2 served as a Disease control (DC). Where as a group-3 served as a standard group (STD) which receive Prednisolone 30 mg/kg and group-4 and 5 served as a treatment group that receive methanolic extract of *A.indicum* which were treated with the dose of 250 mg/kg (AI 250) and 500 mg/kg (AI 500) respectively. After the experimental period blood sample were collected for serum parameter (Amylase, Lipase, Nitric oxide and C-reactive protein). Moreover, Pancreas was isolated for biochemical parameters (Superoxide dismutase, Lipid peroxidase and Myeloperoxidase) and histopathological studies were obtained.

Results: L-arginine treatment caused Pancreatitis as evidenced by marked elevation in Blood amylase, lipase. Co-administration of methanolic extract of *A.indicum* decreased

rise in Blood amylase & lipase level. Estimation of biochemical parameters like MDA, MPO shows decreases and increase in level of SOD after administration of methanolic extract of *A.indicum*. Apart from these Histopathological changes also showed curative nature of methanolic extract of *A.indicum* against L-arginine induced pancreatic damage.

Conclusion: It was observed that methanolic extract of *A.indicum* whole plant has the potential to combat acute pancreatitis by acting as an anti-inflammatory and antioxidant agent by histopathological, serum and biochemical observation against L-arginine induced pancreatitis in rats.

Key words: Acute pancreatitis; L-arginine; Cytokines; Lipid peroxidation; methanolic extract; Anti oxidant