

# “Evaluation of Antiasthmatic Activity of *Tamarix gallica*”

## Submitted by

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## ABSTRACT

The present investigation was undertaken to evaluate antiasthmatic activity of extract of aerial parts of *Tamarix gallica*. Antiasthmatic activity of methanolic extract *T. gallica* was evaluated in guinea pigs and rats. Bronchodilating activity of extract was evaluated against 0.1% histamine aerosol induced bronchospasm in guinea pigs. Methanolic extract of *T.gallica* in dose of 100, 200 and 300 mg/kg were administered orally. Spasmolytic activity of the extract was studied against contraction induced by histamine (100µg/ml). The mast cell stabilizing activity of methanolic extract of *T.gallica* (1, 2 and 3mg/ml) and anti-anaphylactic activity of methanolic extract of *T.gallica* (100, 200 and 300mg/kg) were investigated against compound 48/80-induced mast cell degranulation and egg albumin induced anaphylaxis in rats, respectively. Anti-inflammatory activity of methanolic extract of *T.gallica* (100, 200 and 300mg/kg) was investigated against carrageenan induced paw edema in rats. Treatment with methanolic extract of *T.gallica* showed significant (\*\*P<0.01) protection against histamine aerosol induced bronchospasm in guinea pigs. Methanolic extract of *T.gallica* dose dependently protected

the mast cell degranulation induced by compound 48/80. Significant inhibition (\* $P < 0.05$ , \*\* $P < 0.01$ ) of egg albumin sensitized paw edema was observed and carrageenan induced paw edema was observed by administration of methanolic extract of *T.gallica* as compared to control. Histamine induced contraction of guinea pig ileum was significantly inhibited (\*\* $P < 0.01$ , \*\*\* $P < 0.001$ ) by extract of *T.gallica*. All these results suggest that methanolic extract of *T.gallica* has not only bronchodilating activity but also mast cell stabilizing activity, antianaphylactic activity & anti-inflammatory activity, which could be helpful in preventing asthmatic attacks.