

In-Vivo* Evaluation of Anti-Histamine Activity of *Siddha* Formulation of Extract Powder of the Stem of *Tinospora cordifolia

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Siddha system of medicine is one of the ancient systems of medicine practiced among Tamil speaking communities particularly in southern parts of India, Northern and Eastern provinces of Sri Lanka. “*Seendhil Sarkkarai*” is one of the authentic and multipurpose *Siddha* single herbal preparation of extract powder of the stem of *Tinospora cordifolia*. Initiation of antigen reaction stimulates mast cells to release histamine into the blood. Which interacts with the cells to produce most of the symptoms of allergy. Drugs that block only the action of histamine are known as antihistaminic while the drugs preventing mast cells from releasing histamine are considered anti-allergic agents. In this study, the effects of *Siddha* drug, extract powder of the stem of *T. cordifolia* was studied on the active anaphylaxis and mast cell stabilization in matured Wister rats and histamine induced bronchospasm in matured guinea pigs. The aim of study was to evaluate the anti-histaminic activity on extract powder of the stem of *T. cordifolia* in histamine-induced bronchospasm in guinea pigs. Inbred Wister rats 175-200 g) and guinea pigs (400-600 g) of either sex were used and housed in standard conditions (temperature 22±2 °C, relative humidity 60±5% and 12 h light/dark cycle). They were fed with standard pellet diet and water as required. Mast cell stabilizing activity was studied in twenty-four rats, divided into four groups each with six individuals. Bronchospasm was induced in guinea pigs by exposing them to 1% histamine aerosol under constant pressure (1 kg/cm²) in an aerosol chamber (24×14×24 cm) made of perspex glass, of three groups each with six animals. The result showed that the extract powder of the stem of *T. cordifolia* at a dose of 100 mg/kg and 200 mg/kg for 2 weeks resulted in a significant reduction ($p<0.001$) in the number of disrupted mast cells and significantly prolonged the latent period of Primary Ciliary Dyskinesia (PCD) ($p<0.001$) as compared to control, following exposure to histamine aerosols on day five. Future studies are needed to determine the phytoconstituent responsible for the above mentioned findings, as well as their clinical usefulness in the treatment of associated disorders.

Keywords: Broncho spasm, Herbal preparation, Mast cell, *Tinospora cordifolia*