

### ***Gmelina arborea* induced relaxation in isolated rat ileum-an *ex-vivo* study**

**K. K. Kirubakaran, C. David Raj, P. Brindha and S. Panchapakesan**

Sastra University, India

*Gmelina arborea* belongs to the family *Verbenaceae*. This plant is found in all parts of India from the foot of the Himalayas to Kerala. It is locally called as 'venthekku' in Tamil and candahar tree or white teak in English. The use of *Gmelina arborea* as a medicinal plant is more common in Indian ayurvedic system of medicine and it is a vital ingredient of 'Dasamula'. The aerial part of the plant was subjected to cold maceration extraction method using 70% alcohol. The qualitative and quantitative analysis of aerial parts of *Gmelina arborea* was performed and the preliminary phytochemical analysis revealed the presence of glycosides, alkaloids, flavanoids, steroids, saponin and terpenoids. The cytotoxic screening was performed by brine shrimp lethality bioassay. The effect of *G.arborea* extract in isolated rat ileum was studied by using 16 channels polygraph. The ileum of rat was pre-contracted with potassium chloride and the effect of extract against the pre-contracted ileum was evaluated. The dose response curve of acetylcholine alone and in presence of different concentration of extract/atropine was plotted and their EC<sub>50</sub> values were calculated and compared.

**Keywords:** *Gmelina arborea*, *Ex-vivo* study, Isolated ileum, EC<sub>50</sub> value.

#### **Biography**

K. K. Kirubakaran is pursuing B.Tech Biotechnology from School of Chemical and Biotechnology, Sastra University, Thanjavur. He has presented two research papers in international conferences and one review paper in National conference and participated in few National and International conferences.