

## **Antioxidant, antimicrobial studies and characterisation of essential oil, fixed oil of *Clematis graveolens* by GC-MS**

### **ABSTRACT**

The GC-MS, antimicrobial and antioxidant activity of *Clematis graveolens* was assessed to explore its medicinal importance. Medicinal importance of its genus plants encourages us to undertake the comprehensive investigation of the essential oil and fixed oil of the leaves and stem. GC-MS analysis of essential and fixed oils showed the presence of many compounds in the leaves and stem parts of the plant like 2,2 dimethoxy butane (15.16%) flouroethane (45.14%) undecane (5.16), 1,2-benzenedicarboxylic acid (18.35), 3,8,12-tri-O-acetoxy-7-desoxyingol-7-one (12.74), propanoic acid, 2-(3-acetoxy-4,4,14-trimethylandro-8-en-17-yl)- (9.14) and vitamine E acetate (4.38). The antimicrobial activity of the essential and fixed oil was resolute by disc diffusion and MIC (Minimum inhibitory concentration) assay and plant showed potent activity. Furthermore the antioxidant potential of essential and fixed oil was assessed by the DPPH, Reducing power and by percentage inhibition in linoleic acid system.

**Keyword:** Antioxidant; *Clematis graveolens*; Essential oil; Fixed oil; GC-MS