

## Phytochemical and Anti Ulcer Activity of *Ocimum sanctum*

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### ABSTRACT

The study was carried out to evaluate the phytochemical and anti ulcer activity of *Ocimum sanctum* against gastric ulcers. The phytochemical activity of *Ocimum sanctum* showed the presence of tannins, alkaloids, flavonoids, steroids, amino acids, reducing sugar, carbohydrate. Cholesterol, LDL – cholesterol, VLDL – cholesterol, HDL – cholesterol, triglycerides and phospholipids were also estimated. The results indicated that ethanol extract of *Ocimum sanctum* possessed a promising anti ulcerogenic effect.

In the United States, approximately 4 million people have peptic ulcers and 350,000 new cases are diagnosed each year. Around 100,000 patients are hospitalized yearly and about 3000 people die each year as a result of peptic ulcer disease. The lifetime likelihood of developing a peptic ulcer is about 10% for American men and 4% for women (Grossman, 1980).

Peptic ulcer is a term used to refer to a group of ulcerative disorders of the upper gastrointestinal tract involving principally the most proximal portion of the duodenum and stomach which have in common the participation of acid – pepsin in their pathogenesis. The major forms of common peptic ulcer are (i) Duodenal Ulcer (ii) Gastric ulcer (Sarin and Kumar, 1989; Soll, 1990). Peptic ulcers are produced by an imbalance between the gastro duodenal mucosal defense mechanism and the damaging forces. Gastric acid and pepsin are requisite for all peptic ulceration (Feldman, 1992).

Nowadays, the use of herbal medicine has gained more momentum owing to the general awareness of its safety towards the human system in comparison to the synthetic drugs. So in our study the rats were made ulcerogenic by aspirin and made an attempt to cure the ulcer by *Ocimum sanctum*. The present study has been designed to evaluate the antiulcerogenic effect of *Ocimum sanctum* against aspirin challenge in rats.

### MATERIALS AND METHODS

The *Ocimum sanctum* was collected from Tamil University herbal Garden. Collected plants were carefully examined and identified with the help of regional floras (Gamble, 1975; Mathew, 1983; Nair and Hendry, 1983; Henry *et al.*, 1987). Specimens were further confirmed with reference to Herbarium sheet available in the Botanical Survey of India, Southern Circle, Coimbatore. The plant samples were collected and dried under shade. These powdered materials were used for further physiochemical, phytochemical and florescent analyses. *Ocimum sanctum* extract were used for phytochemical studies such as tannins, saponin, alkaloids, flavonoids, steroids, terpenoids, reducing sugar, amino acid and carbohydrates (Sinha, 1972; Trease and Evans, 1978; Chung, 1995). Swiss male albino rats (Wt 150 - 200 g) were used for pharmacological study.

The animals were divided into four groups. Group I acted as control. Group II acted as experimental control (The animals were fed with 0.5 mg of cholesterol along with the feed for 20 days). Group III animals were treated with aqueous extract of *Ocimum sanctum* (1 g/1 ml) and then ulcer induced. Group IV was fed with aqueous extract of *Ocimum sanctum*. The collected serum was used for the determination of cholesterol, LDL – cholesterol, VLDL – cholesterol, HDL – cholesterol, Triglycerides and phospholipids which were estimated by the method (Kakkar and Dar

### Key words :

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sanctum*,  
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