Introduction
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Peptic ulcer disease.

Peptic ulcer disease is a heterogenous group of illness whose hallmark is a mucosal defect in the stomach or duodenum that extends through the muscularis mucosa. It is a common disorder with lifetime prevalences approaching 10% and point prevalences of 1-2% in American males. The prevalence rate in Indian population has not been authentically reported in the literature but it is not likely to differ from other countries of the world.

Peptic ulcer disease (PUD) includes inflammation, necrosis and ulceration of the stomach, duodenum and esophagus, which result into lesions of the mucous membrane. Healing of the lesions or further spread of lesions and complication depend on the balancing of the aggressive and defensive factors as well as neutralization of the gastric juice (Bushell et al, 1982 and Guth et al, 1982). Aggressive factors are (acid, pepsin, Helicobacter pylori, reflux of bile salts etc.) and defensive factors are (gastric mucus, bicarbonate secretion, cell turnover and gastric mucosal blood flow etc). The rise in gastric acidity and peptic activity are usually a manifestation of a physiological disturbance affecting one or more mechanisms which normally regulate gastric secretion. Both neural and hormonal factors participate in the regulation of gastric acid secretion. Imbalance of these factors may be due to directly and / or indirectly due to excess hot and spicy food, effect of gastric irritation (Desai et al, 1973 ), poor blood supply (Johnsan et al, 1964), reduced secretion of mucus(Whittle et al, 1989), bacterial infection(Tygal et al, 1993), specific infection like H.pylori( Marshall et al, 1984), smoking ( Wate et al, 1995), alcohol, NSAIDs ( Soll et al, 1991 and Djahanguiri et al, 1969 ), stress ( Pertsov et al, 1994), insomnia etc

Conventional drugs used in peptic ulcer disease are mainly acting on aggressive factors antacids (Goan et al, 1989 ), gastrin receptor blockers, anticholinergics (Del-Tacca et al, 1989 ), H₂ receptor blockers(Lundell et al, 1975), proton pump inhibitors( Linberg et al, 1986) etc or defensive factors (cytoprotective like –
prostaglandin analogs (Penny et al, 1994), PGE\textsubscript{2}, PGI\textsubscript{2} and sucralfate (Liumsky et al, 1984) etc.

Majority of drugs used in the treatment of peptic ulcer disease fall into two broad therapeutic categories, those which counteract the effect of gastric acid and those which exert a cytoprotective effect on gastro-duodenal mucosa. None of the available modes and regimens of treating peptic ulcer disease can be considered ideal taking into account the incidence of recurrence of healed ulcers. Hence, we are still in search for more effective and safer drugs.

Herbal medicines are precious and valuable gift of nature. From the treasury of herbal medicine certain plants and their purified constituents have been reported to possess significant antiulcer potential during the last three decades. An attempt has therefore been made to find new herbal drugs from Ayurvedic literature. Nature of the drugs that may provide some clues and motivation to pharmacologists interested in undertaking this challenging task to find out a safe and promising drug from natural sources has been forthcoming in the contemporary literature on herbal drugs.

After an extensive survey of literature and careful preliminary studies of a number of plants, the following three plants were selected for detailed investigations which have been incorporated in this study.

**Tephrosia purpurea** Linn. Pers (Purple tephrosia) - Sharpunkha

**Leptadenia reticulate** Winght & Arn (Cork swallow) - Jivanti

**Basella rubra** Linn. (Indian spinach) - Apodika