

Characterization of plumbagin from *Plumbago zeylanica* L and screening of its Impact on Human Intestinal Microflora

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ABSTRACT:

The present study was carried out to investigate the antibacterial activity of plumbagin from *Plumbago zeylanica* against various human intestinal microflora including *Helicobacter pylori*. Plumbagin, a bioactive compound was isolated from the root bark of *P. zeylanica* by fractional method using soxhlet apparatus, column chromatography and Thin Layer chromatography (TLC). The purity of the compound was further analyzed by subjecting the compound to HPLC studies. The minimum inhibitory concentration of active compound was tested against *Staphylococcus aureus*, *Proteus vulgaris*, *pseudomonas aeruginosa*, *Escherichia coli* and *H. pylori*. Almost all cases of peptic ulcers are caused by either *H. pylori* or the use of anti-inflammatory medication. The results showed that higher activity of plumbagin against human intestinal microflora while compared to standard drugs. No growth was observed against probiotics, a friendly bacteria.

Keywords:

Plumbagin, human microflora activity, *H. pylori*, Natural antibiotic