SUMMARY AND CONCLUSIONS
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*Chlorophytum arundinaceum* Baker, is found to be growing throughout India. The tubers constitute of the drug commercially known as *safed musli*. It is a small pretty, perennial herb often with rhizomes and tuberous roots, valued in traditional system of medicine as a valuable nervine and general tonic for strength and vigor. It is responsible for improving general immunity. It is useful in conditions like aphthae (ulcer), rheumatism, arthritis, diabetes, dysmenorrhoea, sprue, piles and blood disorders and as an aphrodisiac and rejuvenator. It has spermatogenic property and helpful in curing impotency. It cures many natal and postnatal problems. The roots were evaluated for complete pharmacognostic parameters such as macroscopy, microscopy, ash values, extractive values and saponins.

Transverse section of the root showed presence of epiblema, wide cortex, endodermis, alternatively arranged phloem and xylem and a pith. Calcium oxalate was found in the form of raphide bundles in the cortical region.

Preliminary phytochemical screening indicated that the root of *Chlorophytum arundinaceum* Baker was rich in polysaccharides and saponins. Saponins found in the crude drug were possesed haemolytic and foam producing properties.

Effects of 50% alcoholic extract, polysaccharides and saponins were studied on ethanol-induced gastric ulcer model. The protection afforded by Extract S was found to be more significant than that of Extract P. Saponins were further screened for antiulcer potential at the dose of 100mg kg⁻¹ in HCl-ethanol- induced gastric mucosal ulcers in mice, ethanol-induced pylorus ligated gastric mucosal ulcers in rats, ethanol-induced gastric ulcers in N-ethylmaleimide (NEM) pretreated rats, ethanol-induced gastric ulcers in N⁶-nitro-L-arginine
methylester (l-NAME) pretreated rats, indomethacin-induced gastric ulcer models and cysteamine-induced duodenal ulcers in rats.

Oral administration of Extract S inhibited the formation of gastric lesions induced by ethanol and indomethacin in a dose dependent manner. The ED$_{50}$ values were found to be 28.21 mg kg$^{-1}$ and 28.53 mg kg$^{-1}$ respectively.

Extract S at the dose of 100mg kg$^{-1}$ caused significant reduction in ulcer index and the extent of lipid peroxidation as evident from its ability to reduce malondialdehyde levels in ethanol-induced gastric ulcer in rats as well as in ethanol-HCl-induced gastric ulcer in mice. It also increased gastric wall mucus content significantly in treated group when compared with the control. We also found significant increment in preventive antioxidants like SOD and catalase as well as the chain breaking antioxidant like GSH.

Extract S at the dose of 100mg kg$^{-1}$ caused significant antiulcer activity in ethanol plus pylorus ligated gastric ulcer in rats. It also caused significant reduction in ulcer index, acid secretory parameters, pepsin activity and significant increase in mucin activity (TC : PR).

Extract S at the dose of 100 mg kg$^{-1}$ caused insignificant reduction in ulcer index in ethanol induced gastric lesions in NEM pretreated rats when compared with the control group. This indicates that preservation of endogenous sulfhydryls may be mechanism involved in the gastroprotection shown by this extract. The prior administration of l-NAME, an NO-synthase inhibitor completely inhibited the antiulcerogenic activity of the Extract S, suggesting that NO participates in the gastroprotective effect of this extract.

Extract S showed significant reduction in total lesion area and score for intensity in cysteamine-induced duodenal ulcer.
Free radical scavenger and antioxidant activity of Extract S in various reactive oxygen species-generating chemical reactions were determined. Extract S was found to reduce DPPH and EC$_{50}$ value was 0.8mg. It scavenged superoxide radicals in presence of riboflavin-light-NBT system. It also showed protection against damage induced due to lipid peroxidation.

Extract S potentiated pentobarbitone-induced hypnosis in normal mice. It is paradoxical to see anti-inflammatory, analgesic and anti-arthritis effects in a compound possessing antiulcer activity, since anti-inflammatory agents are often ulcerogenic. Extract S demonstrated significant reduction in acetic acid induced writhing. Prolongation of tail flick response time was observed at higher dose. These results indicate that the analgesic effect of the extract could be due to presence of both peripherally and centrally acting components. No attempt was made to find the exact mechanism for the effect of Extract S on CNS.