INTRODUCTION
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Plants have been used medicinally for thousands of years by cultures all over the world. Today Ayurveda, Unani and Siddha are central part of the traditional medicinal system in countries like ours. Also China and UK have got their own traditional system of medicine (great traditions). So it is quite evident that most medicinal plant therapy is based upon the empirical findings of thousands of years and well equipped to treat formidable number of diseases. Further, existence of abundant ethnomedicinal knowledge (little traditions) cannot be ignored. There are many similarities in traditional systems of medicine and ethnomedicine being connected with each other as great traditions and little traditions. There is a significant growth in the recognition from the industrial world that these “traditional values” are valid for all people. But, till date less than two percent of all the plants on the earth have been subjected to phytopharmacological investigations¹. There is no escaping the fact that for a long time to come a large segment of the population world over will continue to be largely dependent upon drugs from the traditional systems. Exploring traditional herbal medicines in the context of modern science is the need for optimum and proper utilization of these drugs. If well-planed scientific studies are carried out on the herbs, which have been used in Ayurveda and other traditional systems of medicines, it will promote awareness in society towards the drugs of herbal origin.

Ayurveda (ayur = life, veda = knowledge; science of life or longevity) is not only a system of medicine but rather a general philosophical approach to the maintenance of good health and long life and to the treatment of diseases. Ayurveda has developed in close association with religion and mythology. It can be considered as a stream of knowledge coming down from time immemorial, which from time to time was interpreted and added to. The first mention of drugs and diseases is found in the Rigveda and Yajurveda (both around 2000
BC). Their characteristic concepts matured between 2000 and 500 BC. Almost 2000 drugs are listed in the Charaka and Sushruta Samhitas, more than 70% being of herbal origin. The continued importance of this science is because of its biomedical effects and place in culture beliefs. The medicinal plant therapy although well equipped to treat formidable number of diseases was developed under pre-industrial conditions. Although most medicinal plant therapy is soundly based upon empirical findings of thousands of years, scientific validation is needed to give this knowledge global acceptance. This is evident from phenomenal increase in demand of the herbal medicines especially for those, which have been scientifically validated e.g. Garlic, Echinacea, Ginseng, etc.

The potential of plants as a source for new drugs is still largely unexplored. Among the estimated 250,000 - 400,000 plant species, only 6% have been studied for biological activity, and about 15% have been investigated phytochemically. India has about 45,000 plant species; medicinal properties have been assigned to several thousand. About 2000 figure frequently in the literature and indigenous systems commonly employ about 700.

The WHO has recognized herbal medicines as an essential building block for primary health care. The WHO has defined the traditional medicine as “the sum total of all the knowledge and practices, whether explicable or not, used in diagnosis, prevention and elimination of physical, mental or social imbalance and relying exclusively on practical experience and observations handed down from generation to generation, whether verbally or in writing”. Large number of natural products, especially plant-derived drugs, continues to be discovered on the basis of traditional or empirical local medical practices. There are about 120 chemicals derived from 90 different plant species, which can be considered as important drugs currently
in use in one or more countries and 77% of these are derived from plants used in traditional medicine\textsuperscript{6}.

Globally herbal medicine is 3-4 times more commonly practiced than conventional medicine. WHO estimated that for some 3.4 billion people in the developing world, plants represent primary source of medicine. This represents about 88% of the world’s inhabitants who rely mainly on traditional medicine\textsuperscript{7}. It has been estimated that up to 50% of the prescriptions presently dispensed in the US may contain one or more natural product drugs\textsuperscript{8}.

The herbal medicine industry is growing at an astounding rate. In the developed countries, the interest in alternative medicine has increased by 60% since last ten years and the market is growing at the rate of 7-10% annually. Estimated sales exceeded $4 billion dollars in 1999 in US alone\textsuperscript{9}. According to the U.N. development project (UNDP) report the global herbal product market is worth US $14.2 billion and is growing at the rate of about 9-15\%\textsuperscript{10}. The annual turnover of the Indian herbal medicine industry is about 2,300 crore as against the pharmaceutical industry of 14,500 crore with a growth rate of 15\%\textsuperscript{10}.

Herbal medicine is acquiring a more scientific edge, which could be one of the main reasons for the survival of this alternative medical system. With the understanding of scientific validity of this knowledge, increasing number of chemical, pharmacological and clinical investigations on herbal drugs used in traditional system of medicine, a global awakening and renewed interest in these systems have resulted in recent years. Clinical efficacy and safety will become easier to counter as the medicinal properties of many plants are being scientifically investigated. The increased interest in herbal medicines is because there exists a back to nature fundamentalism among the large segment of population world over. Emphasis is on "natural is better"\textsuperscript{11}. These drugs are invariably single plant extracts, or fractions
thereof, which have been carefully standardized, and their efficacy and safety, for a suggested application, well demonstrated. In the first place, herbs have far fewer side effects than do synthetic drugs. Since many exert their effects through a multiplicity of mechanisms due to concerted activity by several different types of chemical constituents, the total result is a significant one relatively free of the adverse side effects produced by large doses of a single agent. Secondly herbal products are, and will remain, much more affordable than synthetic drugs. Moreover, these medicines have beneficial properties lacking in synthetic drugs.

By integrating the sciences of ethanobotany, medicine and plant natural product chemistry, it is possible to achieve time and cost saving for drug development. Quality improvement through the use of standardized herbal products leads to quantum acceptance by more people. The key here is the implication inherent in the word "drug" and the inclusion of herbs, which as "phytopharmaceuticals" are no longer herbs, in the sense that a traditional herbalist might approach them but are isolated, standardized and rendered as close to the definition of a "drug" as possible. It is increasingly recognized that herbal medicine can complement and coexist with modern science. While there was a trend in the middle of the 20th century to remove many old botanical drugs from official compendia, as many new synthetic and microbially derived drugs appeared. Nowadays, national and international pharmacopoeias of industrialized and developing countries contain standardized plant-derived drug descriptions. Several pharmacopoeias like British Herbal Pharmacopoeia, Japanese Pharmacopoeia, United State Pharmacopoeia, British Herbal Compendium, German Commission E etc. lay down monographs for herbs to maintain their quality in their respective nations. Government of India has brought out Ayurvedic Pharmacopoeia of India and Indian Herbal Pharmacopoeia, which recommend basic quality parameters for number of indigenous drugs.
Since in most cases efficacy of a crude drug could be evaluated as the sum of additive, synergistic and antagonistic effects of all constituents, the only practical way to ensure uniformity of action of the herb is to prepare an extract, determine its activity by pharmacological and clinical methods, and then prepare a qualitative and quantitative chemical profile of all the significant constituents in it by methods such as HPLC, HPTLC, GC-MS, or the like. Thus it is not mandatory to go beyond the establishment of chemo profiling for herbal drugs. Chemical profiling is a versatile technique, which can be made to good use in assessing quality of crude extracts and their fractions. Fingerprinting in essence is chemo profiling, which means establishing a characteristic pattern for the crude extracts and/or their fractions using various modern methods like HPLC, HPTLC, etc. In spite of the tremendous advances made in the modern science, there are still a large number of ailments for which suitable drugs are not found. Today, there is need to develop safer drugs for the treatment of rheumatic arthritis, diabetes, liver diseases, gastrointestinal disorders (ulceration) and immunomodulators as adjuvants for chemotherapy and adaptogens.

Peptic ulcer is perennial problem encountered by physicians all around the world. It is one of the most common diseases affecting mankind. Peptic ulcers, often considered as a minor condition by patients‘, kill a few but trouble many. The incidence varies with age, gender and geographical location. Though peptic ulcer diseases (PUD) affect 5-10% of the population, they represent a major health issue in terms of human suffering and cost to society in terms of requirements for health care resources. Despite the several alternative unconventional approaches to its treatment, the etiology of PUD still continues to remain obscure and the recurrence of ulcer on cessation of therapy represents a grave problem. Majority of drugs currently 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. The important differences that exist between the available drugs relate to the speed of healing, the time taken to achieve the relief, the rate of ulcer relapse after initial healing and the tolerability and adverse effects profile of these drugs. None of the available modes and regimens of treating peptic ulcer diseases can be considered ideal taking into account the incidence of recurrence of healed ulcers and the adverse effects on continued administration. Hence, we are still in search of more effective and safer drugs, which may accelerate the healing process and prevent the recurrence of peptic ulcers.

The herbal and other indigenous sources have not adequately been explored for the safe and effective anti-ulcer drugs. Existing reports in literature and records from ethnomedicinal survey have led to discovery of several antiulcer drugs like carbanoxolone\textsuperscript{13}, deglycyrrhizinised liquorice\textsuperscript{14}, gefarnate\textsuperscript{13}, ginger\textsuperscript{15}, neem\textsuperscript{16}, and banana\textsuperscript{17}. Many of the diseases involve in their etiology, free radical processes. Antioxidant substances are capable of delaying and even preventing these processes. Antioxidants protect, by preventing the harmful effects of free radical mediated chain reactions in cell membranes and by reducing the susceptibility of the tissues to oxygen stress.

\textit{Chlorophytum arundinaceum} Baker, is found to be growing throughout India. The tubers constitute of the drug commercially known as \textit{safed musli}. It is a small pretty, perennial herb often with rhizomes and tuberous roots. The roots are fleshy and leaves are lanceolate to oblanceolate. The plant is used for various therapeutic applications in Ayurveda, Unani and Allopathy. It has ability to cure many physical illness and weakness. The drug is considered a valuable nervine and general tonic for strength and vigor\textsuperscript{18-20,22}. It is responsible for improving general immunity. Root powder fried in Ghee is chewed in
aphthae (ulcer)\textsuperscript{18-26}. A decoction of root with turmeric (\textit{Curcuma longa}, Zingibaraceae) is given in rheumatism\textsuperscript{18,22}. Among tribal women in central Orissa, an extract of the roots crushed in rice water is taken for dysmenorrhoea\textsuperscript{22}. In Ayurveda the root is used for treating sprue, piles and blood disorders and as an aphrodisiac and rejuvenator\textsuperscript{22,24-26}. It has spermatogenic property and helpful in curing impotency. It is found very effective in increasing male potency\textsuperscript{22,24,25}. It cures many natal and postnatal problems. In literature it is mentioned to have ability to cure arthritis and diabetes. Leaves and flowers are edible\textsuperscript{22}. Our survey on phytochemical aspects revealed the presence of 42\% carbohydrates, 8-9\% proteins, 3-4\% fibers and 2-17\% saponins in the dried roots of \textit{C. arundinaceum}\textsuperscript{27}. The new polysaccharide like galactogluca\textsuperscript{28}, lipids like docosanoate of pyranoside\textsuperscript{29}, alkanes like nonacosane and tetracosane\textsuperscript{29}, steroid like stigmasterol\textsuperscript{29}, sapogenins like gitogenin, neogitogenin and tokorogenin\textsuperscript{30} are reported to be present in the different parts of plant.

The present project examines the use of \textit{Chlorophytum arundinaceum} within the context of the modern scientific framework with an aim to substantiate claims made of this plant in traditional system of medicine. Since the plant is not investigated phytochemically and pharmacologically in detail, the present study was undertaken to check and validate claims mainly pertaining to antiulcer activity of this plant.