Introduction
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Phytochemicals have always been a source of curiosity and challenge to the chemists and a potential treasure trove for pharmacologists. The isolation, identification and structure determination of chemical constituents from plants have fascinated the scientists for more than two centuries. The advancement in synthetic chemistry has matched the same enthusiasm resulting in synthesis of many complicated chemical molecules which were considered impossible to synthesize and could be obtained only from nature.

The greatest beneficiary of these advancements is the pharmacologist, who could develop novel medicines to cure the suffering humanity. For a long time, phytochemicals / natural products were mainly considered as one of the sources of drugs to cure human ailments. This is not unusual because even today natural products remain the main source of drugs or serve as lead molecules for further development. In this respect, there is a vast and substantial difference between modern medicine and traditional systems of medicine in considering the utility and application of phytochemicals. While the modern medicine considers phytochemicals only with the aim of developing drugs to cure the afflictions, the traditional systems have a wider prospective in considering phytochemicals for the prevention of many chronic diseases. In recent times modern medical system has also adopted this concept and many natural products are entering into the arena of present day armamentarium in the nomenclature of nutraceuticals. Carotenoids, phytosterols, anthraquinones, saponins, terpenoids and flavonoid
polyphenolics are some of the nutraceuticals employed all over the world for their health benefits. Regular use of some of the above nutraceuticals has been claimed to reduce the incidence of chronic ailments. For example carotenoids like lycopene have been suggested to protect against heart disease, stroke and certain cancers (Rao et al., 2000; Rissanen et al., 2001). Despite a high intake of saturated fat diet, the lesser incidence of cardiovascular diseases among French (French paradox) has been attributed to regular consumption of polyphenolic rich red wine (Renaud et al., 1992). Regular intake of polyphenolic rich diet has been considered to offer protection against cardiovascular diseases, neurodegenerative diseases and some types of cancers (Esposito., 2007).

Among various phytochemicals the flavonoid polyphenolics form a special category because they are consumed in large quantity by humans due to their ubiquitous presence in vegetables, fruits and leaves that are commonly used as food. Their health benefits are being appreciated only in the last few decades. Enthusiastic scientists ascribed many physiological functions for them and coined a term “vitamin P” to designate flavonoids. However, such a vitamin like role could not be conclusively established for flavonoids. Closer investigation on these compounds identified their role in prevention of many chronic diseases as mentioned above.

Recent scientific studies targeted towards understanding the actions of flavonoids at cellular level revealed surprising facts. Their remarkable antioxidant potential, interaction with many enzyme systems and modulation
of cell signaling pathways provide some explanation for their postulated and proven health benefits (Esposito., 2007). These findings have opened up new avenues in the utility of flavonoids. Polyphenolic flavonoids which have enjoyed a reputation as nutraceuticals for many decades are also emerging as pharmaceuticals with specific use in certain diseases. Although their therapeutic application is presently limited to conditions associated with capillary fragility and related vascular diseases and some liver disorders, new targets are being identified based on their pharmacological profile.

Investigations carried out in recent decades have identified the potential usefulness of these compounds against pain and inflammation. Even though, a wide variety of drugs are presently available to treat pain or inflammation, their accompanying side effects make them unsuitable for chronic use. Even a single dose of non steroidal anti inflammatory drug (NSAID) can provoke serious adverse effects in susceptible individuals. Hence, the search for safe and effective agents to treat pain and inflammation is being pursued all over the world.

From the available literature, it appears that flavonoids hold a promising role in this respect. Some recent investigations have identified certain flavone derivatives to exert potent antinociceptive and anti inflammatory effects without any propensity to induce gastric mucosal damage. It is obvious that an indepth and closer investigation on flavonoid compounds may reward us with novel therapeutic agents from this large group of nutraceuticals to treat pain and inflammation. The present study is an attempt in this direction.