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Medicinal plants have been curing various disorders in human beings from time immemorial and are considered as the integral part of the Indian traditional medicinal system, better known as the Ayurvedic System of Medicine (Basu, 2002). It is estimated that about 80,000 species of plants are utilized by the different systems of Indian medicine (Prajapati et al., 2006). Thomas et al., (2006) reported that the synthetic and chemical drugs have some negative effects or side effects but traditional herbal medicines are safer and easy to access. Plant based drugs are obtained from root, stem, flower, bark and fruit of different medicinal plants at different stages of their growth and development (Basu, 2002; Singh, 2006). In India, few medicinal plants were applied for curing the ailment and are economical when compared to pharmaceutical drugs. (Singh, 2006).

Several medicinal plants have been screened for antimicrobial activity and is gaining more attention now a days since herbal pesticides and fungicides are harmless (Fawett and Spencer, 1970) and easily bio-degradable (Mahadevan, 1982). Most of the plants have been used throughout the world for their preservative and medicinal properties. Scientific experiments on the antimicrobial properties of plants and their components have been documented in the late 19th century (Zaika, 1975) Scientific evidence of efficacy in India
several plants are being used in the form of crude extracts, infusions or plasters
to treat common infections (Ahmad, et al., 1998). Hence, it is of interest to
determine the scientific basis for the traditional use of these medicinal plants.

Ethnobotanists, natural plant product based pharmacists and researchers
have reported that a variety of medicinal plants are capable of curing a number
of human diseases such as diabetes, hyper cholesterolaemia, fever, asthma,
malaria, diarrhoea etc. (Basu, 2006; Thomas et al., 2006).

World Health Organization estimated that more than one billion people
all over the world rely on herbal plants as sources of medicines to certain extent.
Moreover, WHO has listed 21,000 plants with medicinal uses around the world
and consider India as one of the richest country with medicinal plant resources
(Kumar et al., 2006; Shiva et al., 2002). Researchers in the last few decades have
documented an alarming increase in the rate of resistance to synthetic anti-
bacterial compounds globally (Baquero, 1997; Chopra et al., 1996). Hence it is
necessary to screen the medicinal plants with anti-bacterial effects that could be
administered to reduce the loss of life and incidence of infections.

Microbes are closely associated with the health and welfare of human
beings. As a preventive and curative measure, plants and their products has
been used in the treatment of infectious diseases for many centuries. WHO
estimated that about 80% of people world wide rely on plant based medicines
for their primary health care (Farmsworth et al., 1985). Indians are the largest
users of traditional medicine, using 7000 plant species. Currently, the world
trade in plant medicine runs in to billion of dollars. According to the estimates, WHO of the present demand for medicinal plants are about 14 billion US dollars per year and is estimated to be around 5 trillion US dollars by the year 2050 (Trivedi and Sharma, 2004).

Synthetic antibiotics have been effectively used for the control of diseases. Due to the indiscriminate use of these drugs, various pathogenic organisms have developed resistance to most of the currently available antibiotics. Hence, most of the research is now being focused mainly on the plant products as alternatives, because of their efficiency and availability with fewer side effects. But less than 5% of all plant species have been analysed as potential medicines. The present investigation is therefore, aimed at screening the antibacterial activities and phytochemical potentiality of two plants namely Thespesia populnea and Adhatoda vasica.