8. Conclusion

Urinary tract infections are very common, particularly in women, babies and elderly. Around one in two women and one in twenty men will get a UTI in their life time. The most common culprit is the bacterium common to the digestive tract called *Escherichia coli*, which is usually spread to the urethra from the anus.

Scientists tracking UTIs from 2000 to 2010 found a dramatic uptick in cases caused by *Escherichia coli* that do not respond to the drug that are our first line of defence. Some of this growing resistance in *Escherichia coli* and other bacteria is due to the fact that antibiotics are being over prescribed, handed out to patients who have no bacterial infection. The increased occurrence of UTI due to MDR *Escherichia coli* could be due to increased prevalence of MDR strains in community. But antibiotics may not saving us from UTIs for very much longer, perhaps making us approach to an alternative source like the greener counterpart (Medicinal Plants).

Making the necessity to undertake the work done and draw the conclusion mentioned below. *E. coli* is one of the most predominant pathogen of UTI infection in patients of Namakkal district, Tamil Nadu, India. *E. coli* possess multiple virulent factors and were MDR-ESBL pathogens, which are difficult to treat. All the *E. coli* pathogens were isolated from multiple sources and possess variable number of plasmids, which are transmitted between clones. Empirical antibiotic treatment
becomes more difficult due to the emergence of Multidrug resistance (MDR) among uropathogens. One of the methods used to treat most potent MDR – ESBL pathogen was the extracts of medicinal plants. In the present study, aqueous extracts of different plants were found to be effective for the MDR-ESBL pathogens. Molecular docking studies also confirmed the role of phytochemicals as antimicrobial agent.