

CHAPTER - IV

SUMMARY AND

CONCLUSION

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- The plants known as medicinal, are rich in secondary metabolites which include alkaloids, glycosides, flavonoids, insecticides, steroids, related active metabolites. They are of great medicinal value and have been extensively used in the drug and pharmaceutical industry. Recently, a number of studies have been reported on the phytochemistry of plants across the world.
- The present investigation of preliminary phytochemical analysis of different parts of the plant indicate the presence of biologically active compounds such as alkaloids, flavonoids, steroids, terpenoids, tannins, saponins, which are known to be antimicrobial in function.
- The results of the GC MS investigation revealed that the presence of phytochemicals in the ethanol extracts of different parts of *B. longiflora*. The phytoconstituents present in the different parts of *B. longiflora* may be attributed to the medicinal characteristics. In future, the isolation and purification of presented phytochemicals would be useful in the preparation of novel drugs for treating diseases.
- From these findings it is concluded that, as dose of the *B. longiflora* increases the antimicrobial activity as well as antifungal activity increases. From the observations it clearly indicate that *B. longiflora* has potent antimicrobial activity as well as antifungal activity but it act by dose dependent manner.

- In summary, the present study demonstrated that ethanol extract of *Barleria longiflora* is a potent anti-cancer compound with an IC₅₀ of 184.3 µg / ml inducing growth inhibition in the human cervical cancer cells.

- In this finding it is also concluded that rbcL and matK sequence of *B. longiflora* may be used for the identification of this species reported from any part of the world through BLAST analysis if the identical sequences are submitted to Gene Bank in future.