

## CHAPTER V

### CONCLUSION AND RECOMMENDATION

The present work on the stems of *Coscinium fenestratum* Colebr. has led to the isolation of three protoberberine alkaloids and one aporphine alkaloid. The identification of isolated alkaloids was based on the spectral data and comparison of  $R_f$  values on several TLC systems with authentic alkaloids. All the three protoberberine alkaloids are 2, 3, 9, 10-series with different substituents. Two of them are quaternary protoberberine alkaloids with different substituents at position 2, 3. The methylenedioxy substituents at 2, 3 is berberine and the 2 with methoxy group, 3 with hydroxy group is jatrorrhizine. The tetrahydroprotoberberine alkaloid has 2, 3, 9, 10 substituents with methoxy groups is tetrahydropalmatine.

The structure of aporphine alkaloid which has methylenedioxy substituent at position 1, 2 and methoxy groups at 8 and 9, is crebanine.

Tetrahydropalmatine and crebanine have never been reported from any materials of this species before. The present work has led to find the new source of these two alkaloids.

The pharmacological and toxicological studies of the isolated alkaloids are among the points strongly recommended, particularly berberine and jatrorrhizine. The rich pharmacological activities of the isolated alkaloids from the stems of *Coscinium fenestratum* Colebr. remain of great intrinsic scientific interest.