



CHAPTER V

CONCLUSION AND RECOMMENDATION

The present work on the fresh leaves of *Mitragyna speciosa* (Korth.) Havil. has led to the isolation of six heteroyohimbines and three oxindoles. The identification of isolated alkaloids was based on the spectral data and comparison of R_f values on several TLC systems with authentic alkaloids. Two of the six heteroyohimbines are of unsubstituted closed E ring alkaloids with *allo* and *normal* configurations, viz. tetrahydroalstonine and ajmalicine, respectively. The remaining four are of C(9)-methoxy open E ring heteroyohimbines, one of which is the dominant alkaloid with *allo* configuration, mitragynine. The other two are of *normal* configuration with C(20)-ethyl and C(20)-vinyl group, namely speciogynine and paynantheine, respectively. The last one is mitraciliatine, the *pseudo* configuration heteroyohimbine.

The three oxindoles are unsubstituted closed E ring, one of which is isopteropodine, the *allo* A. The other two are of *normal* configuration, the C(7) stereomers isomitraphylline (A series) and mitraphylline (B series).

Tetrahydroalstonine and the corresponding oxindole, isopteropodine, have never been reported from any materials of this species before.

The evidences of base-line alkaloid(s) and one heteroyohimbine alkaloid, DS-10, which structure has not been completely elucidated present other interesting points to be investigated.

Alkaloidal investigations of the seed, stem bark, and root bark of the mature plants of this particular species are also very interesting.

The pharmacological and toxicological studies of the isolated alkaloids are among the points strongly recommended. The analgesic and narcotic properties of the isolated alkaloids and drug abuse of the fresh leaves of this particular plant remain of great intrinsic scientific interest.

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