

CHAPTER 4

INVESTIGATION ON THE ACID PART OF GYNOCARDIA ODORATA

Chromatography of the acid part

The acid part of the benzene extract of bark of Gynocardia odorata was chromatographed over silica column. The column was eluted with the solvents as shown in Table 7.

Table 7

Chromatography results of the acid part of G odorata

| Frac- tion num- ber | Eluent | Nature of resi- due after remo- val of solvent | Melting point |
|------------------------------|-----------------------------|--|------------------|
| 1 | Petroleum ether | oil | - |
| 2 | Pet ether:benzene (4:1) | oil | - |
| 3 | Pet ether:benzene (3:2) | oil | - |
| 4 | Pet ether:benzene (2:3) | oil | - |
| 5 | Pet ether:benzene (1:4) | oil | - |
| 6 | Benzene | oil | - |
| 7 | Benzene:solvent ether (4:1) | solid | 285-90° |

Further elution with more polar solvent did not afford any solid materials

Examination of fraction 7 (Table 7) : isolation and identification of trichadenic acid A

Fraction 7, on repeated crystallization from chloroform-methanol furnished fine needle crystals, which had constant melting point 292-293°, $[\alpha]_D^{25} +25.0^\circ$. The presence of a hydroxy (3300 cm^{-1}) and a carboxylic acid group (1685 cm^{-1}) in the compound is evident from IR. The compound is found to be identical with trichadenic acid A, 43 (mmp, co-IR and co-TLC) obtained in the neutral part of G odorata.