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CHEMICAL INVESTIGATION OF *BLEPHARIS SINDICA* STOCKS

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*Blepharis sindica* Stocks (N.O. Acanthaceae), locally known as "Asad booty" in Sindhi language, is a small shrub with branches covered by very short hairs. It is found in Sind, Punjab and Baluchistan and grows in rainy season. Its seeds are reported to be used for earache [1].

The dry plant was collected from Jamshoro, since fresh plant was not available due to drought conditions in the area. The seeds (500 g) were crushed and extracted twice with petroleum ether (60-80°) for three hours each time. The extracts were filtered hot, concentrated and allowed to cool overnight at room temperature when a white crystalline compound, separated. It was insoluble in acetone, ether and chloroform and soluble in water and hot alcohol. It was recrystallised from hot water (1.5 g) m.p. 234-236°. It showed i.r. (KBr) peaks at 3450, 3350 cm<sup>-1</sup> (N-H stretchings), 3150, 3000 cm<sup>-1</sup> (C-H stretchings), 1780, 1725, 1650 cm<sup>-1</sup> (carbonyl absorptions), 1600, 1525, 1400 cm<sup>-1</sup> (ring stretchings) 1060 and 1010<sup>-1</sup> (C-NH stretching vibrations).

*Analysis*: Calculated for C<sub>4</sub>H<sub>6</sub>O<sub>3</sub>N<sub>4</sub>; requires C, 30.38; H, 3.80 and N, 35.44 %; found C, 31.21; H, 3.80 and N,

36.85 %. It was identified as allantoin by its mixed m.p. with an authentic sample, comparison of i.r. spectra and preparation of a diacetyl derivative m.p. 245-246° decomp. (lit. 247°).

The filtrate, after removal of allantoin was evaporated under reduced pressure and subjected to column chromatography (Silica gel) with benzene as the solvent. On concentrating and cooling the first fractions (300 ml) a white crystalline compound (1.8 g) m.p. 65-66° separated. It was soluble in non-polar solvents and insoluble in ethyl alcohol, acetone and water. Its i.r. (KBr) bands at 2950, 1465 and 718 cm<sup>-1</sup> (C-H) showed it to be an aliphatic saturated hydrocarbon. It was identified as *n*-hentriacontane (C<sub>31</sub>H<sub>64</sub>) by its mixed m.p. (lit. m.p. 67-68°) with an authentic sample and a urea adduct m.p. 133-34°.

*Key words*: *Blepharis sindica*, Medicine for ear-ache, *n*-Hentriacontane.

## REFERENCE

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