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Alkaloid-constituents of *Jatropha curcas* Linn

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ABSTRACT

Six alkaloid along with one unknown alkaloids were separated from the seeds of *Jatropha curcas* Linn, by column chromatrography and identified by comparing their physical data with authentic samples.

Key words: Alklaoids, Coloumn chromatography, *Jatropha curcas*.

INTRODUCTION

Jatropha curcas Linn, is useful medicinal plants of India[1-2]. It leaves are used as discutiet, seeds as purgative and emitic, fresh stems are used as tooth-brush to cure bleeding and spongy gums. Root bark is applied externally in rbeumatism. The oil is considered good in dropsy and paralysis[3]. The vide range of medicinal uses of *Jatropha curcas* attracted our attention to screen it completely for active principles found in this plant. In this note we report the isolation and characterization of six known alkaloids viz-atropine, morphine, strichinine (in traces), codeine, pilocarpine and yombine (in traces) wtih an unknown alkaloid- JC VII.

Dried and powdered seeds of *Jatropha curcas* procured from Govindpura, Bhopal (M.P.), were extracted with pet, either 60-80° in a soxhlet extractor for 24 hours to remove oily material. Mashed seeds were dried in the open air and extracted again with ethanol (95%) for 14 hrs at 60-70° temperature. The ethanolic extract was treated with 2% Hcl (AR). The acid soluble portion was neutralized with ammonia, at pH 9.0 and extracted with chloroform. The chloroform fraction was evaporated to dryness togive a brown solid mass (4.5g). The solid mass was treated with pet ether (60-80°C) and solvent ether to remove traces of oil.

The purified chlorofrom extract (4g) gave the positive colour tests with Dragon-draft reagent and Mayer's reagent etc. on TLc examination (Chloroform:Methanol, 4:1)[4], the chlorofom extract revealed the presence of seven bands in increasing order of Rf. values, which were labelled as JC I, JC II, JC III, JC IV, JC V, JC VI and JC VII. The bands were separated by Column Chromotography using Neutral Alumina (E.Merck) as absorbant and chloroform: methanol (9:1, 8:2, 7:3, 6:4, 1:1) and pure methanol as eluent.

JC I - JC VI were identified as atropine, morphine, strichinine, codeine, pilocarpine and yombine by comparing their physical data with authentic samples. JC III and JC VI were detected on TLC only. JC VII (Rf. 0.94), isolated in pure form (1.0 g) remained undertified on co. TLC m.m.p etc. The spectral studies of JC VII are under process and we are very much hopeful to characterize it as a new alkaloid.

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