INTRODUCTION

The medicinal plants are widely used by the traditional medicinal practitioners for curing various diseases in their day to day practice. In traditional system of medicine, different parts (Leaves, stem, flower, seeds and even whole plant) of *Diplocyclos palmatus* (figure 1) have been used to treat various diseases. It has considerable reputation as a potent adjunct in the treatment of various ailments such as jaundice, inflammation and fever. *Shivalingi* (*Diplocyclos palmatus* Linn.) is a lesser heard medicinal plant of Ayurveda with the fruits having important use in the area of reproductive medicine (female infertility, aphrodisiac, tonic, leucorrhoea). The plant especially the fruits have immense folklore usage even today. It has been described in Ayurvedic classical texts like *Rajanighantu* and *Nighantu ratnakara*. So far no study reports are available on chemical analysis on the dried fruits of *shivalingi*. Hence, the present attempt was undertaken with an objective to investigate the Phytochemical and Pharmacotherapeutics studies. The results of the analyses showed the presence of organic constituents like alkaloids, triterpinoids, flavonoids, saponins, steroids and proteins in the dried fruit. This provides impetus to conduct advanced research on this fruit to uncover its vast medicinal potential.

Keywords: *Diplocyclos palmatus*, Phytochemistry, Pharmacotherapeutics.
coloured fruit has eight vertical white streaks. They rip red and bear a few brown, obovate seeds. The compressed seeds have a length of 4 mm and width of 3 mm and they are usually encircled by a prominent raised band. The plant generally flowers between the months of August and September and fruits in September and October in central India. Lingini or Shivalingi is commonly found throughout India and it is most common and typically found in village hedges.5,16,17

**PHYTOCHEMISTRY**

Phtochemical studies of *Diplocyclos palmatus* shows the presence of alkaloids, flavonoids, triterpinoids saponins, steroids and proteins, resins with, Sugars, starch. The seeds have been reported to contain 12% oil, protein also contains goniothalamin, bryonin, punicicacid and lipids.6,19

**PHARMACOLOGY**

*Gynaecological activity*

Seed of Shivlingi, Sonth, Kalimirch, Putrajivi and Root bark of Vat is made in powder. 2-5 gms. Powder is taken with water or milk at night once daily for 21 days, after completion or beginning of menstrual cycle.5,3

**Antiasthmatic activity**

The antiasthmatic activity of 70% alcoholic extract of *Diplocyclos palmatus* was done by mesenteric mast cell count by Atopic allergy method in rats. The number of intact and disrupted mast cells, in ten randomly selected fields for each tissue was counted. Three slides per each animal were studied.4

**Analgesic Activity**

The analgesic activity of the 70% alcoholic extract of *Diplocyclos palmatus* was carried out in mice using Eddy’s hot plate analgesio meter. After administration of test and standard drug, the test for analgesia was carried out by placing the mice on electrically heated plate at 55degreeC +/- 0.5 degree C and noting the signs of discomfort, i.e., it may lick its fore paws or jump out of the plate. The time was noted in seconds. Test was carried out similarly for animals of control group. The observations were made at 30’ and 60’ It was found that *Diplocyclos palmatus* showed fairly good analgesic activity at 30 and 60 minutes when compared with standard drug.4

**Anticonvulsant Activity**

For inducing convulsion by electro shock, a rectangular pulse current of high voltage (150 mA) is employed. The electro shock was given to each rat for 0.2 seconds with the help of convulsion meter through pinna electrodes. Drugs likely to be effective in Grandmal epilepsy usually confer protection against electrically induced convulsion in animals. Group I received carbamazepine (40mg/kg body weight) and Group II received 0.2ml of 1% Tween 80 solution and served as standard and control respectively. Similarly Group III received 500mg/kg body weight of 70% alcoholic extract of *Diplocyclos palmatus*. The electro shock was given to each rat for 0.2 seconds with the help of convulsion meter through pinna electrode and the effects were observed.4

**Antimicrobial activity**

Ethanol extracts of different parts of *Diplocyclos palmatus* through well diffusion method. There fine responses of the organisms to the leaf and stem extracts compared with standard antibiotics, while organisms did not show any susceptibilities to fruit and seed extracts. *S. aureus, M. luteus, B. cereus* and *P. aeruginosa* were susceptible to leaf and stem extract at all concentrations except *P. aeruginosa* for 10 mg/ml. *E. coli* and *S. typhimurium* were resistant to all extracts. Judging by the diameter of the zone of inhibition *B. cereus* and *S. aureus* were identified as the most susceptible organisms the stem and leaf extracts of *Diplocyclos palmatus*. In general antibacterial activity increases with increase in concentration of extract as evident by the zone of inhibition.6,8

**Antivenom and Antidote activity**

50g of leaves ground to paste. 1-2 spoonfuls of paste are administered with betel leaves immediately after bite. It is given thrice a day until the patient gets relieved from bite.10

**Anti-inflammatory Activity**

The dried powdered plant material was extracted with chloroform in a Soxhlet extraction apparatus. The solvent was removed under reduced pressure and semi-solid mass was obtained (yield 14.25%). The extract showed positive test for steroids, triterpenoids and lipids. The extract at the different doses of 50, 100 and 200 mg/kg was suspended in aqueous Tween 80 solution (2%) and indomethacin (10 mg/kg) in saline used for the present study.9,10,12

**Classical uses**

Lingini or Shivalingi has a number of useful medicinal properties and usages. It is
considered bitter, aperient and tonic and it is commonly used for relieving bilious attack. The leaves of the plant are applied topically for getting relief from inflammations. The Indian women sometimes take the seeds in combination with other plant drugs for helping conception and prevent miscarriage. The practitioners of Ayurvedic medicine use the plant’s fruit as an aphrodisiac and tonic, while in Siddha; the entire plant is used for getting relief from constipation. Seeds are use in sterility due to blocked tubes in women Snake bite Root Fever Stomach ache External abscess Fruits are used for Diarrhoea.  

Fig. 1: Diplocyclos palmatus leaves

REFERENCES
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