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PRELIMINARY PHARMACOGNOSTICAL STANDARDIZATION OF *CYNODON DACTYLON* LEAVES

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ABESTRACT

Plant *Cynodon dactylon* (L.) Pers. Family (Graminae/Poaceae) is extensively used in clinical symptomes but it has various pharmacological activities have been investigated. It is a very familiar plant almost available in the perfact world. In ethno medicinal practices, the plant *Cynodon dactylon* used in the treatment of various diseases and has pharmacological action. The present reviews represent the different pharmacological activities and medicinal properties of *Cynodon dactylon* (L.) It is used for treatment of various diseases like diarrhea, gastroenteritis, dysentery, diabetes, hypertension, caries, wounds, pain and fever. It also possesses anti-microbial, anti-malarial, antitussive, hepatoprotective effects etc.

KEYWORDS: *Cynodon dactylon* (L.), Graminae/Poaceae, steroids, covering trichomes.

1. INTRODUCTION

Since the ancient age, different medicinal plants were extensively used for treatment of different diseases. Those were utilized in different systems of medicines all over the world which include Ayurveda, Chinese medicine, Homeopathy, Siddha, Unani and many others. Though amazing development could be possible through advanced research in Allopath system of medicine but even today nearly eighty percent of individuals from developing countries are using traditional medicine obtained from medicinal plants because of lack of affording capacity and others.[1]

Cynodon dactylon is hardy, perennial grass, very variable, with long rapid growing, creeping runner or stolons, rooting at nodes, forming a dense tuft on the surface of the soil, runners sometimes 20m long, 2-6mm broad, flat or sometimes folded or convolute; inflorescence on clums 15cm to 1m tall consisting of 2-12 spikes arranged star like at apex of stem; spikes 2.5-10cm long with numerous spikelets, arranged in 2 rows on one side of spike; spikelets flat, 2-2.5mm long, awnless, with 1 floret; glumes unequal, the upper longer and one third to three fourth length of floret. It is used for treatment of various diseases like diarrhea, gastroenteritis, dysentery, diabetes, hypertension, caries, wounds, pain and fever. It also possesses anti-microbial, anticonvulsant, anti-inflammatory, anti-malarial, antitussive, hepatoprotective effects etc.[2,3]

In traditional medicine it is used for indigestion and the treatment of wounds. According to an old Venda tradition, it is used in the fermentation process to make beer sour.[4] It is reported to be alterative, antiseptic, aperients, astringent, cyanogenetic, demulcent, depurative, diuretic, emollient, sudorific and vulnerary; it is reported to be photosensitizing in animals, to cause contact dermatitis and hay fever. It is folk remedy for anasarca, calculus, cancer, carbuncles, convulsions, cough, cramps, cystitis, diarrhea, dropsy, dysentery, epilepsy, headache, hemorrhage, hypertension, hysteria, insanity, laxative, measles, rubella, snakebite, sore stones, tumors, urogenital disorders, warts and wounds.[5,7]

2. MATERIAL AND METHODS

Plant Material

Fresh leaves of *Cynodon dactylon* were collected from fields of Saranath, Varanasi, and medicinal garden in Prasad institute of technology, Jaunpur. The leaves parts were dried under shade and powdered (40 mesh size) and stored in airtight containers. The macroscopic characters were studies as per given procedure in WHO guidelines on quality control methods for medicinal plants materials.[6] Fluorescence analysis of powdered leaves was carried out.[7,8]

Macroscopical Studies

In this method of evaluation crud drug evaluation by their color, order, shape, size, test, character and compare the standard one.

Color: Grey-green
Order: astringent,
Test: sweet

Size: 2-15cm
Flower: greenish
Fruit: tiny grains
The leaves of the plant were studied for their macroscopic characters such as size, shape, colour, odour, taste in nature.[9,10]

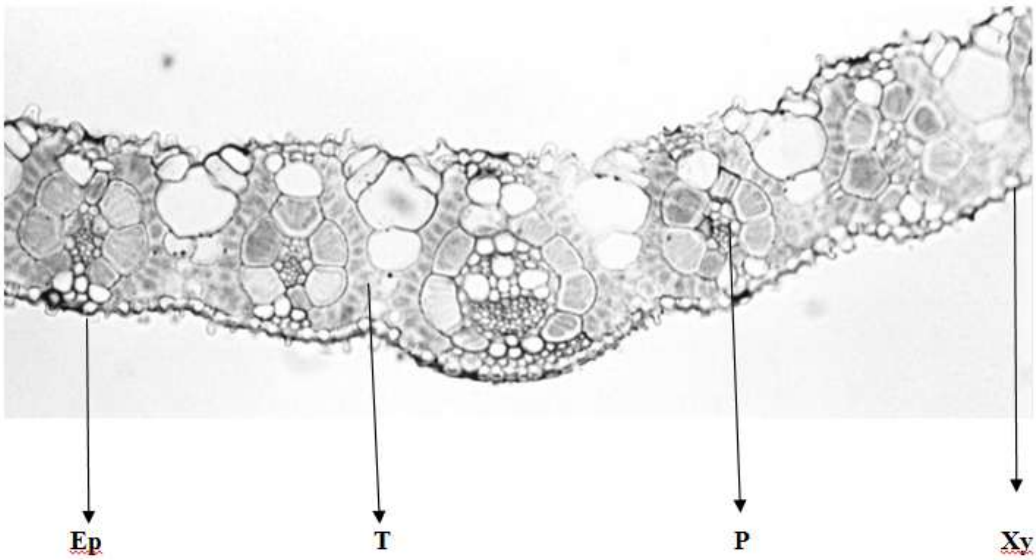
RESULTS

Microscopical Studies

Cynodon dectylon were collected from fresh and evergreen. Early for morning and green carpet has been laid on ground and beaker and grass was washed with dil. water.

For microscopically studies the fresh leaf was fixed with formalin-acetic acid-alcohol mixture for about eighteen hours. Thin section was cut by sharp razor and observed under compound microscope for pharmacognostic characterization. Photomicrographs of different magnification were taken with Samsung S750 digital microscopic unit.[11]

Cynodon dectylon



Microscopic
P- Parenchyma; Ep-Epidermis; T- Trichome; phloem; Xy- Xylem.

In the microscopically study of the leaves of *Cynodon dectylon*, it was found simple, entire at margin, pinnate type reticulate venation, opposite phyllotaxy, petiolate, oval-oblong in shape, acute at apex, to be light green in color, order, rough, characteristics smell and size 2-15cm, flower greenish and fruit are tiny grains. In microscopically studies, the trichomes on the leaf epidermal cells.

CONCLUSION

Preliminary pharmacognostical standardization study of the leaves of *Cynodon dactylon* including macroscopic, other physical values and parameters will help to identify the species of plant.

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