

Evaluation of anti-pyretic activity of *Dracaena sanderiana* by Brewer's yeast method

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ABSTRACT

These medicinal plants are used to develop a therapy for the disease. To improve the science, investigate the scientific proof and activities validation, therefore the use of various herbal remedies for their pain-relieving and anti-inflammatory action in these current days. *Dracaena* includes cardioprotective influence, anti-inflammatory, anti lithogenic effect, analgesia, thermogenic effects and some beneficial effects on the GI system. Therefore capsaicinoids show the potential value of pain relief, cancer prevention and weight loss. According to these plant effects, consider that this present study was mainly based on to investigate and likely to reduce the fever caused by the *Dracaena* outdoor and indoor. Chemopreventive potential of capsaicin is evidenced in leave studies. The medicinal plant produces a variety of chemical substances which shows significant therapeutic properties with the standard drug paracetamol.

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INTRODUCTION

These medicinal plants are used to develop a therapy for the disease. To promote the science, investigate the scientific proof and activities validation, therefore the use of various herbal remedies for their pain-relieving and anti-inflammatory action in these current days. Herbal medicines are the main chemical constituents to synthesize drug, which is used for uncertain disease. Diseases such as cancer and heart failure, etc. are depended on herbal choice medicines.

Dracaena sanderiana, which is known as mother

in law tongue and lucky bamboo are some tropical plants that are in the forests of the rain forest. They are used as indoor plants that used to give out fresh air by absorbing benzene and other harmful gases. Numerous studies are performed to prove the antioxidant activity of *dracaena* and the chemical constituents are flavonoids. Since the plant is indoor, it is to test the antipyretic activity of the plant considering that antioxidant will have antipyretic activity too. So two kinds of the plant which are grown indoor and outdoor under direct sunlight are selected for study to prove which has the highest activity [1].

Research method

Plant parts

The *Dracaena sanderiana* indoor and outdoor are carefully obtained in December from the farm and thoroughly dried in the shelter. To dry this, ambient temperature and humidity were used. Powder the extract and sieve through the mesh. Add 100mg powder in soxhlet apparatus along with methanol and measure it. Dry the filtrate and collect semi-solid paste. Therefore, the yield percentage of outdoor is 8.56% (DMI) and fruit percentage was 5.96%(DMO). These two doses are used to check the

Table 1: *In-vivo* Antipyretic activity of *Darcaenea*

Group	Normal temperature °c	Temperature after administration ° c						
		12hr yeast	after	1hr drugs	after	2hr drugs	after	3hr after drugs
Control	38.63±	43.47±		41.63±		42.81±		43.71±
Saline 5ml/kg	0.27	0.72		1.15		0.64		0.52
DMI	39.75±	41.07±		42.57±		40.32±		40.46±
250mg/kg	0.83	0.64		0.96		0.15		0.62
DMI	40.21±	42.30±		41.15±		39.24±		39.32±
500mg/kg	1.06	0.58		0.54		0.53		0.93*
DMO	37.12±	43.24±		42.37		41.43±		40.78±
250mg/kg	1.42	0.93		±0.79		0.96		0.83
DMO	39.68±	41.98±		41.02±		40.18±		39.50±
500mg/kg	1.90	1.23		0.83		0.87		0.14*
Paracetamol	40.84±	42.12±		40.68±		39.75±		38.84±
150mg/kg	0.76	0.69		1.01		0.44		0.37*

antipyretic effect [2].

Antipyretic screening

In this research, male and female adult albino wistar rats are used with the weight of 160-250gms. These rats were placed in the cages with room temperature and air conditioning, along with food and water are supplied. Each group contains 6 animals and contains 6 groups.

Brewer's yeast method

In this present study, 0.5% methylcellulose was dissolved in saline solution. In Methylcellulose suspension, 15% yeast was added and led to hyperpyrexia [3-5].

In two days for every 6 hours, rats body temperature was recorded before the trial started. While testing on rat, Already prepared yeast should be injected subcutaneously along with arts of 10ml. After injection, these were kept in the cages for 12 hours. The vehicle, extract dose and standard drug that is paracetamol 150mg/kg was orally taken. After taking the drug, measure the temperature rectally after 1hr, 2hrs, 3hrs.

DATA ANALYSIS

Take the data as replicate and values as means and derive their standards from mean. Dunnett's test shows that each group should be compared with the vehicle group. Therefore significant was $P < 0.02$.

RESULTS

Yeast method was used to extract the methanol from indoor and outdoor and then compare their antipyretic effect. It leads to hyperpyrexia for 12 hours after the yeast was taken and continue until for 3 hours before starting the trail and later increase an average of 3-5 degrees. When saline was given to the normal group, it doesn't show reduced temperature until 4 hours; it should be left elevated. (Table 1)

When extract and standard drug paracetamol was taken, it shows lowered temperature after 3 hours in the rectum. When the extract was taken after 1 hour, the change in temperature is not significant. Rats show extract delays in the gastric medium. Hence, paracetamol was a powdered tablet, taken after 1hr shows the analgesic and antipyretic effect.

Indoor shows higher activity than outdoor in plant parts. Proportional dose effect has both the extracts, one is when extract high dose was increased in action was identified and other is when fruit compared with outdoor, it shows increased activity and is noted. When compared with a normal vehicle, this isn't different. Later, outdoor shows relative chemical constituents which are having an antipyretic effect. The *Dracaena* shows same activity with the paracetamol drug.

CONCLUSION

Documented evidence shows the *Dracaena* of anti-inflammatory and analgesic effect and the then antipyretic effect was examined. Plants per-

form better activity whereas fruit shows significant antipyretic effect.

CONFLICT OF INTEREST

Authors declared no conflict of interest.

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