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# Role of single drug formulation Mavilinga pattai choornam for sagana vadham (Cervical spondylosis) - review

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**Abstract**
The ancient system of Medicine is Siddha system of Medicine, which had been followed by Siddhars. According to Siddha the diseases are categorized and concluded as 4448 disease. As on the classification of disease one among Vatha disease. Again the Vatha disease are classified into various types and one among the Sagana Vatham. The signs and symptoms are related to the cause and its manifestation. In Siddha Medicine many formulation has been given for Sagana Vatham. However single drug formulation Mavilinga pattai (*Crateva magna*) chooranam is meticulously given for Vaatha disease without having any contra indication. Hence this article provides the efficacy of Mavilinga pattai Choornam on Cervical Spondylosis, based on the Siddha literature and modern medicine.

**Keywords:** Siddha, vatham, maviliga pattai, sagana vatham, cervical spondylis

## Introduction
From birth to death men have to overcome many diseases. Various systems are there to control or overcome these diseases. Among them Siddh system is immemorial and even the scientific world have around its basis of Yoga, kayakalpam and Herbal medicines etc.
The basis of Siddha system are Panja Bootha and Mukuttram theories. In Thirukural, author said about mukkutram as "*Migunum kuraiyinum Noi seyyium Noolour Vali Muthalaai enniya moonru"* They are Vaatha, Pitha and Kabha. As per Yugi muni aspects vatha diseases were classified into 85. Sagana Vatham (Cervical spondylosis) is also one among them. Sagana Vatham characterized by Neck pain, Pain in shoulder, radiating upto fingers, tingling sensation and numbness in hands and vertigo etc. [4].
Many herbal formulations are useful in treating Sagana Vatham. One among is Mavilinga Pattia (*Crateva magna*) stem bark chooranam.
"*Maaviligna pattayinaal vathamodu sannikalum. Maarume* Gunapada Mooligai Vaguppu.
As on the basis, the author incorporated the medicine for saganavatham. In treating vatha disease the Siddha system of medicine has its miraculous effect.

## Aim
To elucidate the potency of Mavilinga pattai, which has the anti- Vatha property, anti-rheumatic property and anti- inflammatory property used in treating vatha disease.

## Objective
This article has obtained from various articles and various text books.

## Literature Review
As on the Siddha literature Gunapaadam Mooligai vaguppu
*Suram kadiyin thodam tholaiyatha Vatham*
*Uram perum vidangal oliym- aramum*
*Karuma vaduvagalum kandu anjum kannaai*
*Oru maavilingu kurai*
*Agathiyar Gunavaagadam* [5]
As on the literature Agathiyar Gunavaagadam *Crateva magna* is been indicated for Fever, poisonous bites, Rheumatic diseases, snake bites [3].
However the stem bark powder has the anti-vatha property [12].

**Anti-inflammatory activity:** Evaluation of the anti-inflammatory activity of ethanol extract of ficus dalhousia Miq root (FDREE) in albino wistern rats using a carrageenan-formaline - induced paw edema model [6]. The Anti-inflammatory was determined by modelling paw edema. Induced by carrageenan and formalin at three doses of 150 mg/kg, 300 mg/kg and 600 mg/kg. Male and female Wistern rats weighing 140-150 g were used in the study. At the result show that in test group, a significant decrease in the increase in paw volume was observed in the model of paw edema induced by carrageenan and formalin. In addition, the level of anti-inflammatory agents is higher in the test group compare to the negative control group [6].

**Anti-analgesic and antipyretic activity**

The FD Miq ethanolic extract tested for analgesic and antipyretic effects in albino wistern rats. Analgesic and antipyretic activity was shown in white rats. Hot plate and acetic acid induced in convulsions were used to evaluate analgesic activity. Antipyretic was determined in an east fever model. Ethanol extract of the leaves of FD Miq. At doses (250 mg/kg and 500 mg/kg), a significant dose dependent analgesic effect was observed with the hot plate and acetic acid induction method [6].

Crataeva magna is a potent medicinal plant in the Indian systems of medicine. Traditionally used for inflammation, fever, arthritis, bronchitis, urinary calculi and cough. The objective of the present work was to study the antipyretic activity of plant Crataeva magna (Lour.) DC belonging to family Capparaceae [7].

In the present study the alcoholic extracts of the bark of Crataeva magna were studied for their antipyretic activity by TAB (Typhoid) vaccine-induced pyrexia in rabbits. In TAB vaccine-induced fever, the fever was significantly reduced and the body temperature was normalized by administration of 200 and 400 mg/kg dose orally and the property was comparable to the reference drug. Conclusion: This study has established the antipyretic activity of Crataeva magna and thus, justifies the anecdotal, folkloric and ethnomedical uses of this plant for fever [7].

The plant *Crataeva magna* belonging to family Capparaceae is used in anti-spasmodic, hypotensive, anti-inflammatory, hypoglycemic, anti protozoal, analgesic purposes. The present study was carried out to evaluate appropriate animal model [8]. The antioxidative potential of different solvent extracts of *Crataeva magna* were evaluated using 1,1-Diphenyl-2-Picrylhydrazyl (DPPH), 2,2′-Azino-Bis(3-ethylbenzthiazoline-6-Sulphonic acid) (ABTS), superoxide radical, hydroxyl radical, nitric oxide radical scavenging activities and lipid peroxidation inhibition assay. Among those solvent extracts, ethanolic extract of C. magna exhibited highest level of antioxidant activities. The ethanolic extract also inhibited $H_2O_2$ mediated haemolysis and lipid peroxidation in human RBC [8].

The plant *Crateva magna* belonging to family Capparaceae is used in anti-spasmodic, hypotensive, anti-inflammatory, hypoglycemic, anti protozoal, analgesic purposes. The present study was carried out to evaluate the effect of *Crateva magna* whole plant (ethanolic and aqueous extract p.o.) on alloxan induced diabetes in appropriate animal model. The study was carried out on alloxan induced diabetic model [9]. The diabetes was induced by using Alloxan and Glibencamide (5 mg/kg) was used as standard drug. The aqueous extract of leaves of *Crateva magna* results maximum yield value than that of petroleum ether extract, chloroform extract and alcohol extract through successive maceration process [9]. The aqueous extract of leaves of *Crateva magna* showed maximum control of blood sugar in hyperglycemic Wistar rats than other experimental extracts. The test extract also reduces the blood sugar level to a maximum extent in case of normal animals. So we finally came to the conclusion that the plant *Crateva magna* increases healing of diabetes and prevents the development of experimentally induced diabetes in Wistar rats [9].

Antioxidant effects of the Peroleum ether, Benzene, ethyl acetate, Methanol and Ethanol extracts of the bark of *Crateva magna* were tested on the basis of scavenging activity of the free radical DPPH (1, 1-diphenyl-2-picryl-hydrazyl), Hydroxyl, ABTS, Superoxide and reducing power assays. The methanol extract of C. magna showed the highest antioxidant activity and the activity of the extract increased with the increasing concentrations. All the analysis was made with the use of UV-Visible Spectrophotometer [10].

This research aims to perform phytochemical screening, determine total phenolic content, flavonoid content and antioxidant properties of ethanol extracts of flowers, young leaves, mature leaves, twigs and bark of *Crateva magna* (Lour.) DC. The antioxidant activity was studied using DPPH, ABTS and FRAP assays. The total phenolic content (TPC) and total flavonoid content (TFC) of the extracts were determined using Folin-Ciocalteuand and Aluminium chloride colorimetric methods, respectively. The preliminary phytochemical test results indicated the presence of phenolics, flavonoids, tannins and volatile oils in the extracts from different parts of the plant samples [11]. The young leaves extract possessed the highest value of TPC and TFC with 5.73±0.28 mg GAE/g DW and 56.62±0.23 mg RUE/g DW, respectively. The young leaves extract also showed the highest antioxidant activity as evidenced by DPPH and ABTS assays at IC 50 values of 0.30±0.02 mg/ml and 0.92±0.04 mg/ml, respectively and FRAP value of 13.06±0.08 FeSO 4/g DW. In conclusion, the young leaves extract of this plant showed high phenolic and flavonoid contents with strong antioxidant properties. It was also found that phenolic and flavonoid contents related to antioxidant activity. Therefore, the extracts from C. magna are good sources of antioxidants and could be developed for pharmaceutical applications [11].

## Discussion

As the article critically reviewed from various text books and such as Siddha literature and modern literature and also the various articles given that the maavilinga pattai (*Crateva magna*) has its own property. So many literature gave an evidence of anti- inflammatory property, anti- oxidant property, anti-vatha and anti- analgesic property.

## Conclusion

It is been proved that Mavilinga pattai (*Crateva magna*) bark powder have an efficacy over vatha disease so its indicated for sagana Vatham, one among Vatha diseases.

## References

1. Uthamarayan KS. H.P.I.M, Thotra kirama Aaraaichiyum Siddha Maruthuva Varalarum, 5th Edition, Directorate of Indian Medicine and Homeopathy, Chennai - 106.
2. Shanmugavelu M. H.P.I.M, Noi Naadal Noi muthal Naadal Thirattu, 3rd Edition Part -I Directorate of Indian Medicine and Homeopathy, Chennai- 106.

3. TV. Sambasivam pillai, Siddha medical dictionary I-V Volumes (Tamil-English) published by Department of Indian medicine and Homeopathy, Chennai- 106.
4. Mudhaliyar NK, Maruthuvam S. 1st edition on 1936, published by Directorate of Indian Medicine and Homeopathy, Chennai -106.
5. Vagadam AG, Pathipagam T, 1st printed on June 2019, Creative offset printers.
6. Mohsina FP, Quazi A, Faheem IP, Almas U, Rohin S. Ethnopharmacology, Phytochemistry, Traditional Uses, Pharmacology and Chemistry of Crataeva magna and Ficus dalhousie.
7. Chidambaram K, Albert J, Karpagam K. Antipyretic activity of *Crateva magna* bark on tab-vaccine induced pyrexia. International Journal of Pharmaceutical Sciences and Research. 2011 Apr 1;2(4):856.
8. Sridhar N, Mishra SM, Venkataraman S. *In-vitro* antioxidant activity of crataeva magna lour. dc bark extract. Asian Pacific Journal of Tropical Disease. 2012 Jan 1;2:S846-S848.
9. Das P, Sethi R, Mekap S, Pani S. Phytochemical and pharmacological screening of the plant *Crateva magna* against alloxan induced diabetes in rats. Journal of Pharmaceutical Sciences and Research. 2010 Apr 1;2(4):257.
10. Vijaya G, Doss A, Parthipan B, Mohan VR. Assessment of *In-vitro* antioxidant activity of various bark extracts of *Crateva magna* (Lour) DC. (Capparaceae). Journal of Pharmacognosy and Phytochemistry. 2018;7(4):1596-1599.
11. Surayot P, Seekhaw P. Phytochemical screening, determination of total phenolic and flavonoid contents and antioxidant activities from *Crateva magna* (LOUR.) DC. Life Sciences and Environment Journal. 2018 Sep 19;19(2):297-305.
12. Mudhaliyar M, Gunapaadam Mooligai vaguppu-2 Indian medicine and Homeopathy, Chennai- 106, printed on; c2012. p. 44-443.