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## Review Article



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## Significance of *Alternanthera sessilis* in *siddha*– A Review

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## Introduction

*Siddha* System of medicine is the previous Medical System. *Siddha* treatment aims in providing ultimate cure to both mind and body system. Diet and lifestyle play a major role not only in maintaining health but also in curing diseases. “Food as Medicine” is one of the basic concept of Traditional *Siddha* Indian Medicine. The today’s term Nutraceuticals can be used in *Siddha* Medicine in ancient day itself. Nutraceutical is defined as a food or part of it provides the body with medical or health benefits,

including the prevention and treatment of disease. South Indian food is rich with Greens. Right from the ancient days, leafy greens have been an important portion of the daily diet. Being power – packed with a variety of vitamins and minerals makes them a mandatory addition to every healthy diet plan. The fat and sugar content of green leafy vegetables is minimal. They also protect your body by strengthening the immune system, slowing down signs of ageing and preventing heart diseases, high blood pressure and cancer. *Alternanthera sessilis* a widely consumed leafy vegetable in different parts of India.

## Objective

The main objective of this review is to focus on the evaluation of anti-oxidant carotene in

*Alternanthera sessilis* which is used for the treatment of eye disorders and promotes longevity of life.

## Classification of *Alternanthera sessilis*

Rank	Scientific name and common name
Kingdom	Plantae – Plants
Subkingdom	Tracheobionta – Vascular plants
Superdivision	Spermatophyta – Seed plants
Division	Magnoliophyta – Flowering plants
Class	Magnoliopsida - Dicotyledons
Subclass	Caryophyllidae
Order	Caryophyllales
Family	Amaranthaceae Martinov – Amaranth Family
Genus	Alternanthera Forssk. – Joyweed
Species	Alternanthera sessilis – Sessile joyweed

## General uses

*Alternanthera sessilis* has many uses because of its minerals, vitamins and high contents of dietary fiber, flavonoids and carotenoids. This herb contains gold according to Siddha literatures and therefore it is included in Kayakarpam category also along with this it is believed in India that it gives cooling effects to eyes and body. Noxious weed (*Alternanthera sessilis*) is being used to treat dysentery, night blindness and stomach disorders.

Sessile leaves is fried with ghee, which gives cooling effect to eyes. It acts as a good anti – oxidant. Relieves floating abdomen, liver diseases. The leaves are very effective in treating in cuts and wounds 18, antidote for snake bite and scorpion sting and skin diseases. Medicated oil prepared out of the juice of sessile plant as chief ingredient, used as bathing oil, gives cooling effect to eyes and body, neuritis, treating 96 types of eye, piles and Halitosis.

## Ponnanganni in Gunapadam Mooligai

**Suvai** : Inippu

**Thanmai** : Thatpam

**Pirivu** : Inippu

**Seigai** : Udalthettri, Kulirchi undaaki

## Ponnanganni Karpam

“Ponnanganni keerai pottriunna karpam  
Ponnanganni keerai podhumae –ponna  
Irupthi lakkamadhi yerpath thiyathai  
Irupathi lakkamadhiyae”.

## Carotenoids

Carotenoids are natural lipid – soluble antioxidants abundantly found as colorful pigments in fruits and vegetables. Atleast 600 carotenoids occur naturally, although about 20 of them including Beta – carotene, alpha-carotene, lycopene, lutein, zeaxanthin, meso-zeaxanthin and cryptoxanthin are detectable in the human blood. Carotenoids are the most abundant pigment groups and lipid-soluble anti-oxidants in nature that are responsible for the yellow, orange or red color of fruits, leaves and flowers. Carotenoids, especially lutein and beta-carotene, offer benefits to human health in general and to eye health in particular. However more data on the contribution of plant foods to carotenoids intake is of importance for developing strategies for

promoting eye health in regions where cataract is highly prevalent.

### Lutein

Lutein is a carotenoid with reported anti-inflammatory properties. A large body of evidence shows that lutein has several beneficial effects, especially on eye health. In particular lutein is known to improve or even prevent age-related macular disease which is the leading cause of blindness and vision impairment. Lutein is a type of organic pigment called carotenoid. It is related to beta-carotene and Vitamin – A. Many people think of lutein as the eye vitamin. Lutein is one of two major carotenoids found in human eye (macula and retina). It is thought to function as a light filter, protecting the eye tissues from sunlight damage. Foods rich in lutein include egg yolks, spinach, kale, corn, orange, pepper, kiwi fruit, grapes, zucchini and squash.

### Activity

It possess anti-microbial, wound healing, anti-oxidant, hepato-protective, anti-Ulcer, anti – diarrhoeal and anti-inflammatory activity.

### Oxidation

Oxidation is basically a chemical reaction that produces free radicals resulting in the continuation of chain reactions that can significantly damage the cells. Oxidative stress is also a significant contributor to the pathophysiology of age-related cataract, a leading cause of blindness globally. Increased oxidative stress of retinal cells damages the mitochondrial DNA in diabetic retinopathy, one of the most deleterious eye-related complications of diabetes. The major causes of progressive and irreversible loss of vision include various ophthalmic diseases such as cataract, age-related macular degeneration (AMD), glaucoma, and diabetic retinopathy. Initiation and progression of these disorders involve oxidative stress, apoptosis, mitochondrial dysfunction, and inflammation.

### Antioxidation

Some anti-oxidants like to terminate the chain reactions of oxidation. The majority of research performed to date has examined the effects of commonly known antioxidants such as vitamins E, C, and A, and carotenoids (lycopene, lutein, and zeaxanthin). The ability of these phytochemicals to scavenge free radicals and upregulate expression of glutathione. Decreasing oxidative damage in the retina, lens, and optic nerve of the eyes, could improve the clinical features of ARMD, including macular pigment optical density, visual field damage, and optical neuroprotection. While lutein and zeaxanthin, the principal phytochemicals in green leafy vegetables, have been shown to reduce risks of cataracts and ARMD. *Alternanthera sessilis* leaves having the anti-oxidant effect.

### Conclusion

Food is one of the basic necessities in living being. *Alternanthera sessilis* provides good fiber, vitamins, minerals and antioxidants. Oxidative stress and inflammation play a critical role in the initiation and progression of age-related ocular abnormalities. Phytochemicals present in *Alternanthera sessilis* appear to have a potential role in the prevention and treatment of age-related diseases and eye diseases, like cataracts, glaucoma and macular degeneration and provide longevity of life. ‘To eat is a necessity, but to eat naturally is an art’. Nature provides that art continue the way said by Siddhars to live a healthy life.

### References

1. <https://www.researchgate.net> > 2630. (PDF) Review of *Alternanthera sessilis* with reference to traditional siddha medicine
2. <https://www.sciencedirect.com> > pii *Alternanthera sessilis*: Uncovering the nutritional and medicinal values.
3. [www.ncbi.nlm.nih.gov](http://www.ncbi.nlm.nih.gov) New Concepts in Nutraceuticals as Alternative for Zharmaceuticals

4. K. S. Murugesu Mudhaliyar , Gunapadam  
(Mooligai vaguppu) Materia Medica Part,  
Government Press,1936,1<sup>st</sup> edition.

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