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Review article

Role of Siddha Medicine in Anti Aging (Kaya Karpam) – Literature

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ABSTRACT

The aim of the study is to provide the reference data for the day to day sustenance. Today out of wide platform for knowledge vide media, internets, and newspapers many people are widely confused which to take and do not. The harmony of the life is contemplated and convinced only by showing them young. The data is collected from the book *Thiruvalluva nayanar karpam* 300 which gives the solution for the present situation. Over centuries ago such practice was performed as *Kayakarpam* by our *Siddhars* who were solely responsible for the Siddha system of medicine. Scientific evidence collected from various journals is an added credit to support the data.

Keywords:

Siddha, Kayakarpam, day to day sustenance.

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INTRODUCTION

Cell damage and ageing is a day today happening. Despite the molecular mechanism of cell damage and aging are clear with numerous efforts few effective drugs have been developed to reverse the cell damage or even cease its chronic progression. Siddha medicine the main components of medical practice used for more than 5000 years especially in Tamilnadu exerts a wider action in treating human diseases. *Kayakarpam* a unique treatment procedure in Siddha system of medicine has its importance in the prevention of cell damage. Recent data have shown that antioxidant benefits of the active ingredients from Siddha medicine in this field which may represent an attractive source of drug discovery against cell damage. During the aging process, a progressive decline in function and host defense occurs over time, which increases vulnerability to many inflammatory-related diseases.

Since ancient times, the beneficial effects of some natural compounds have been appreciated in preventing various age-related pathologic conditions, including brain aging as well as neuro degeneration, and have been invigorated by a plethora of experimental and epidemiological studies. Ginger, dried ginger and black- or Chebulic Myrobalan, are the drugs of immense value in various conditions. Many articles have shown that this drug possesses free radical scavenging, antioxidant; inhibition of lipid peroxidation and that these properties might have contributed to the anti aging effects as per the text. This review summarizes the various anti aging effects of ginger, dried ginger and black- or chebulic myrobalan and also emphasizes on aspects that guaranty to establish its activity and utility according to the classical text in siddha system of medicine. The literature information was obtained from the scientific database like pub med Cochrane library to identify the experimental studies on the anti oxidant and anti inflammatory role of the active ingredients of the Siddha medicine.

kālamē iñci yuṇṇak kāṭṭiṉār cūttirattil
mālaiyati lēkaṭukkāy matiyāṉañ cukkarunta
cūlamē tēkamaṭā cukkilattaik kaṭṭiviṭum
ñālamē luṉatuvintu naṟṟēṅkāy pōlākum

- Tiruvaḷḷuva nāyaṉār kaṟpam 300

Siddha system of medicine is relyed on theory of Panchabhoota (earth, fire, air, water, akash) and humors (vatham, pitham and Kabam) and (Saaram,senner, oon, kozhupu, enbu, moolai, sukkilam). The Food we take if balances the humor is supposed to give energy by the end of 7th day according to the Siddhar Therayar in the form of Sukkilam the life force.

Based on this reference cited from the text Morning - ginger, afternoon-dried ginger and black myrobalyan in the evening strengthens the Sukkilam (one of the 7 humours). Sukkilam which is contemplated as the life force if strengthened daily by such practice rejuvenates and helps in antiageing naturally. The following scientific evidence on ginger, dried ginger and black myrobalyan from different journals adds flavor to the reference from the text.

Ginger (*Zingiber officinale*)

1)A pyrolic product of ginger called zingerone is said to be have potent antioxidant, anticancer, and anti-inflammatory effects. The anti-inflammatory properties of zingerone appear to be related to the suppression of the inflammatory actions of macrophages and release of monocyte chemoattractant protein-1 from adipocytes. It is also found that Zingerone can suppress age-related NF-κB activation and several of its target genes, like cyclooxygenase-2 and inducible nitric oxide synthase in senescent male rats[1].

2) It has been reported that ginger extract inhibits the production of nitric oxide (NO) and pro inflammatory cytokines in lipopolysaccharide (LPS)-stimulated BV-2 microglial cells via the NF-κB (nuclear factor kappa-light-chain-enhancer of activated B cells) pathway[2].

3) In several traditional medicines evaluated ginger was one of the agents that significantly prevented AGE (advanced glycation end products) formation in vitro which help in delayed cataract effect. [3]

4) The anti-oxidative properties of ginger and its components have been explored in various *in vitro* and *in vivo* tests. In that 6-Shogaol has exhibited the most potent antioxidant and anti-inflammatory properties in ginger, which can be attributed to the presence of alpha, beta-unsaturated ketone moiety. Animal modeling showed that ginger significantly lowered induced lipid peroxidation and raised the levels of antioxidant enzymes, together with serum glutathione.[4]

5)6-Shogaol was described to not only have anti-cancer and anti-inflammatory capabilities, but also had the potential to be used as an anti-metastatic treatment. At pro-apoptotic concentrations, 10-shogaol, an extract from ginger, was able to induce G(2)/M arrest and abnormal mitotic cell death that is associated with tubulin aggregation.[5]

6)Ginger roots were found to enhance the activity of certain antioxidant enzymes such as superoxide dismutase (SOD), catalase (CAT), and glutathione peroxidase (GPx) in different male reproductive organs such as testis, prostate, and epididymis. In addition, ginger has been found to attenuate the cell damage markers such as aspartate aminotransferase (AST), alanine aminotransferase (ALT), alkaline phosphatase (ALP), and lactate dehydrogenase (LDH) in the testis.[6]

7) It is reported that oral administration of ginger extract significantly increased the number, viability, and motility of the sperms and also serum total testosterones in rats. Ginger rhizome was found to overcome reproductive toxicity of cyclophosphamide and gentamicin.[7]

8) It is also said that administration of ginger can significantly increase the testosterone level in plasma and stimulate spermatogenesis [8]

9) Stereological examinations showed that treating animals with ginger extract decreased the testicular damages induced by busulfan. The data of the volume of the seminiferous tubules showed that exposing the rats to ginger extract significantly increased the volume. Stereological examinations showed that treating animals with ginger extract decreased the testicular damages induced by busulfan. The data of the volume of the seminiferous tubules showed that exposing the rats to ginger extract significantly increased the volume.[9]

Chebulic myrobalan (*Terminalia chebula*):

1)*T. chebula* exhibits *in vitro* antioxidant and free radical-scavenging activities. Its antimicrobial, anticancer anti-anaphylaxis and anti-diabetic activities have been reported.[10]

2) T.*chebula* shows antioxidant property in DPHH free radical scavenging activity which has been widely employed to evaluate the in vitro antioxidant activities.[11]

3)*T. chebula* extract markedly scavenged the nitrogen-centered free radical DPPH in a dose dependent manner. From HPLC analysis, it was observed that main phenolic compounds in *T. chebula* are gallic acid and ellagic acid, which are well-known natural antioxidants.[12]

4) *In vitro* antioxidant assays revealed excellent free radical scavenging activity, reducing power, and potent metal-chelating activity. Gas chromatography-mass spectrum analysis illustrated the presence of 22 active compounds, among which methyl N-(N -benzyloxycarbonyl-beta-l-aspartyl)-beta-d-glucosaminide exhibited potent AChE and BuChE inhibition analyzed through *in silico* studies.[13]

5) The present study suggests that *T. chebula* fruit extract has protective effects against diazinon-induced oxidative stress.[14]

CONCLUSION

These research work have shown the therapeutic benefits of Siddha medicine in the prevention of ageing and cell damage. However more research should be undertaken to clarify the the unconfirmed chemical composition and regulatory mechanism. Standard clinical trials is needed to evaluate the possible side effects.

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CONFLICT OF INTEREST : None declared

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