

ROLE OF GUDUCHI IN MUSCULOSKELETAL DISORDERS: REVIEW BASED ON AYURVEDIC LITERATURE.

^{1*} Dr Ragini Kumari. ² Dr Megha Murali. ³ Dr Sujeet Kumar. ⁴ Dr Dineshwar prasad.

¹ST yr MD Scholar, Department of Kayachikitsa, Government Ayurvedic college, Patna.Bihar.

²¹ST yr MD Scholar, Department of Kayachikitsa, Government Ayurvedic college, Patna.Bihar.

³Assistant Professor, Department of Kayachikitsa, Government Ayurvedic college, Patna.Bihar.

⁴Guide & Principal of Government Ayurvedic college, Patna.Bihar.

ABSTRACT: Over the centuries, medicinal plants have served as a major source of medicine for prevention and treatment of diseases including musculoskeletal disorders. These medicinal plants are getting more importance around the globe and many studies provided safety and efficacy of such medicinal drug in different conditions. Guduchi is reported very effective in musculoskeletal disorders. Ayurveda has used Guduchi in many forms or with many combinations of drugs to treat disorders of musculoskeletal. Researchers reported Guduchi as anti inflammatory, antiarthritic, anti-immunomodulator, antioxidant[1]. It relief the symptom of pain, weakness, deformity, dystrophy, etc due to its properties. Hence we are going to review the role of Guduchi in MSK.

KEY WORDS: Guduchi, Joint disorders, Kapha, Musculoskeletal, Pitta, Vata.

INTRODUCTION:

Ayurveda is science of life and longevity. It not only cures diseases but also promotes a positive approach of life and there by helps in preservation, prolongation and maintenance of happy and healthy life. Musculoskeletal complaint accounts for more than millions patient in the world. Musculoskeletal system (locomotor system) comprises of muscle, bone, joints and soft tissue structures like ligament and tendons.[2] A large population is affected by arthritis or joint disorders. Minimal evaluation and one day symptomatic therapy and reassurance. However in some cases MSK may hold a more serious condition that requires for the evaluation and additional laboratory findings.

From very ancient time musculoskeletal disorders or related symptoms were very well explained in Ayurveda like Aamvata, Sandhivata, Vatarakta etc. They explained about their nidan, purvroop, roop, samprapti, bheda and their management. They used many medicinal plants to treat them. But in our modern science the major pharmacological agents currently being used for treatment in bone disorders. Like the NSAIDs(Non Steroidal Anti inflammatory Drugs), DMRDs(Disease Modifying Ant-rheumatic Drugs), Immunosuppressive agent and the anti-cytokines agents. These are quite effective, but their prolonged use may be associated with significant adverse effects such

as gastrointestinal[3] toxicity, kidney damage or infections[6]. Accordingly increasing number of MSK patients are resorting to the use of natural herbal products. Such products have been used in Ayurveda from very ancient times. In Ayurveda a lot of medicinal herbs are described for joint disorders from which Guduchi is one of them.

Guduchi is a Sanskrit word which means "protecting body from diseases". Also, this plant is called "Amrita" which refers to heavenly elixir according to Hindu mythology. According to tale, Guduchi saved celestial beings from old age and kept them eternally young. The term Amrita is attributed to its ability to impart youthfulness vitality and longevity. Tinospora cordifolia, family Menispermaceae, widely distributed in India, extending from the Himalayan down to the Southern part of Peninsular India. It is characterized as Rasayan and used for anti-inflammatory, immunomodulator[5], anti-allergic, anti-diabetic properties etc. It has remarkable anti-inflammatory properties and has found useful in the treatment of inflammatory disorders. The antimicrobial properties and cytotoxic activity of Guduchi has been evaluated in its crude methanolic extract, petroleum, ether, carbon tetrachloride and chloroform extract.

The whole plant is used medicinally however the stem is approved for use in medicine due to higher alkaloid contents. Guduchi has attracted a great deal of attention in the biomedical arena because of its broad spectrum of therapeutic properties and no toxicity.

In Ayurveda Guduchi is described as having following qualities:-[6]

- Rasa(Taste) :- Bitter and Astringent.
- Guna(Quality) :- Light and Unctuous.
- Veerya(Potency) :- Heating.
- Vipaka(Post digestive effect) :- Sweet.
- Prabhava(Special action) :- Destroy toxin both internally and externally.
- Doshkarma(Energentsics) :- Tridoshic (VPK).

Guduchi contents diverse phytochemicals, including alkaloids, phytosterol, glycosides and mixed other chemical compounds. Columbin, tinosporaside, Jatrorhizine, Palmatine, berberine [7], Tembeterine, Tinocordifolioside, phenylpropene, disaccharide, choline, tinosporic acid, tinosporal and tinosporon.[8]

Its bitter and astringent properties and sweet post digesting effect reduces pitta. The bitter, astringent and eating quality reduces kapha. Vata is reduced by its heat and sweet post digestive qualities. Its heat burn up Aama(undigested food) yet does not aggravate pitta and its sweet post digestive effect gives it a nourishing rejuvenative quality.

Due to so many qualities of guduchi it is described in most combinations of Ayurvedic formulation for musculoskeletal disorders. Most medicines described in Ayurveda samhita for

joint disorders having guduchi as its content. Astang Hridya described Guduchi best for vatarakt(Gout)[7].

Aacharya charak described guduchi as “causing astringent effect, promoting digestion and alleviating vata, kapha.[8]

Aacharya Bhav Prakash described, Guduchi is pungent, bitter and astringent in taste, sweet in post digestive effect, tissue vitalizer, absorbent, hot in potency, light in action, strength giving and appetizer. It alleviates all the three Dosha and Aama(undigested food, retained in the intestine). It cures burning sensation, vata diseases[9].

Hence we find Joint disorders effect Vata , Pitta, Kapha simultaneously. And Guduchi having Tridosh effect . According to Acharya P.V.Sharma, Guduchi when taken with proper anupan it calibrate V, P, K.

DISSCUSION:

MSK complaint accounts for more than millions present in the world. It is increasing day by day. The excessive use of NSAIDS and DMRDs are affecting our body very much. Hence, A lot of diseases increasing day by day especially in joint, chronic cases are also a rising and a large population is affected, which is of a great concern. Also today's fast life style affecting our musculoskeletal system which leads to several joint and muscular disorders. This concern is increasing as there is no proper way other than NSAIDS and DMRDs , these days biologics are also used but not very significant. So, A step has been taken to provide significant treatment by traditional medicine, especially Guduchi which has been described for joint disorders in Ayurved Samhita millions of year back. Ayurveda is providing a significant cure to MSK diseases like amvata, vatrakta etc.

CONCLUSION:

Tinospora cordifolia is used veterinary Ayurvedic System of medicine for joint disorders. Here we find Guduchi due to its enormous properties & chemical constituents, it provides great success in treating joints disorders. Besides it Prevention of these diseases should be given more priority. Thus , we should follow dietary habits & daily regimes to be remain healthy all through our life.

REFERENCES:

1. Pendse VK, Dadhich A P , Mathur PN , Bal MS, Madam BR, anti-inflammatory, immunosuppressive and some related Pharmacological actions of Tinospora cordifolia; A preliminary report Indian J Pharma. 1977; 9:221-4.
2. Davidsons Principle and practice of medicine 19th edition.
3. Scheimen , JM (2001) The impact of Non-steroidal anti-inflammatory drug induced gastropathy. american Journal of managed care7 : S10- 14.

4. Weir; M (2002) renal effects of non-selective NSAIDs and Coxibs . Cleveland clinical journal of medicine 69: S153-58
5. Singh N., Singh M.S., Shrivastava P.(2005) Immunomodulatory actions of medicinal plant *Tinospora cordifolia*. Immunopharmacology and Immunotoxicology, Vol.26 pp.145-162.
6. Dravyaguna vigyan ,By;Prof.P.V. Sharma,Chaukhambha Bharti Academy, Varanasi. Guduchi, Pg-761-763.
7. Mohan, Mohind C.; Abhimannue, Anu P.; Kumar B, Prakash [15 April 2017]. "identification and characterization of berberine in *tinospora cordifolia* by liquid chromatography.
8. "Tinospora", Drugs.com.15 july 2019. Retived 5 September 2019.
9. Astanga Hrdayam[Text English translation] By: Prof. K. R. Srikantha Murthy, Chowkhamba Krishnadas academy, Varanasi.sutrasthan
10. Charak Samhita [Text with English translation based on Cakrapani Datta's Ayurved Deepika] Vol.1, By:- R.K.Sharma & Bhagwan Das. Chowkhamba Sanskrit Series Office Varanasi. Sutrasthan Chapter 25/40.
11. Bhavaprakasa of Bhavamisra, commentary by: Dr.Bulusu Siatram, Foreword by: Prof. K.C.Chunekar, Chaukhambha Orientalia, Varanasi. Purva khand chapter – 6.iv/8-10.