



A CASE STUDY ABOUT THE EFFECT OF ASTHISHRIKLA GHRIT MATRA VASTI IN THE MANAGEMENT OF ASTHIKSHAYA W.S.R. TO OSTEOPOROSIS

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ABSTRACT:-

Osteoporosis is a skeletal disease characterized by low bone mass and micro-architectural deterioration of bone tissue, with a consequent increase in bone fragility and susceptibility to fracture. Modern medicines have its own limitations in treating osteoarthritis and have many adverse effects with its prolonged use. Hence Ayurveda which is well known for treating chronic diseases and providing a safe therapy is proved a noble management for treating Osteoporosis. In this study a female patient aged 50 years was admitted in IPD of Panchakarma with complaints of bilateral knee joint pain, crepitus, restricted movements and general weakness since one year. She was a diagnosed case of Osteoporosis. Vasti Chikitsa is considered as half the treatment for Vata dominated diseases, for its Vata Shamaka properties, proved better in the Management of osteoporosis (Asthi-kshaya). ASTHISHRIKLA is an ayurvedic herb used for strengthening bones and joints and promoting bone growth. It increases bone mineral density and enhances the rate of fracture healing. Hence ASTHISHRIKLA GHRIT MATRA VASTI (60ml) was given to the patient as treatment for a period of 21 days. This treatment showed marked improvement in all parameters i.e. pain and swelling was reduced, stiffness reduced, gait improved, range of movements increased.

KEYWORDS: Asthi-kshaya, Osteoarthritis, ASTHISHRIKLA GHRIT MATRA VASTI, Vata.

INTRODUCTION

Osteoporosis is a growing public health problem globally and is a leading cause of

pain and disability in most countries worldwide. It is the second most common disease having prevalence of 22-39% in India. OA is more common in women than men, but the prevalence increases dramatically with age^[1]. Osteoporosis is a skeletal disease characterized by low bone mass and micro architectural deterioration of bone tissue, with a consequent increase in bone fragility and susceptibility to fracture^[2] It is also known as degenerative arthritis, which commonly affects the hands, feet, spine and large weight bearing joints such as the hips and knees. It is increasingly being recognized that multiple pathogenic mechanisms interact in the development of the osteoporotic state.

Osteoporosis has been classified as primary or secondary. Primary osteoporosis has been further divided into type I and type II. Type I osteoporosis is six times as common in women as in men. It is called as postmenopausal osteoporosis because in menopause, estrogen deficiency takes place because of loss of ovarian follicles. Estrogen protects cartilage from inflammation and supports osteoblastic formation. Type II osteoporosis or age associated osteoporosis, is twice as common in women as in men. A long history of calcium deficiency is largely responsible for this condition, which is called senile osteoporosis because it occurs in patients over the age of 70. Most of the old age population usually suffers from this disease which hampers quality of life.

Calcium, vitamin D and PTH help maintain bone homeostasis. Insufficient dietary calcium or impaired intestinal absorption of calcium due to aging or disease can lead to secondary



hyperparathyroidism. PTH is secreted in response to low serum calcium levels. It increases calcium re-absorption from bone, decreases renal calcium excretion, and increases renal production of 1,25-dihydroxyvitamin D (1,25[OH]₂ D)-an active hormonal form of vitamin D that optimizes calcium and phosphorus absorption, inhibits PTH synthesis, and plays a minor role in bone re-absorption.

Around the world herbs are in use for thousands of years to treat several health conditions. One of the herbs that have shown significant beneficial effects on bone healing belong to the *Cissus* family of plants. *Cissus quadrangularis* a medicinal herb used as a general analgesic tonic it's also known as *ASTHISHRINKHALA*. It is used especially for bone fracture healing, in Ayurvedic medicine since ancient times *ASTHISHRINKHALA* contains a high amount of Vitamin C, carotene A, anabolic steroidal substance and calcium. To give effective relief to the patient, Ayurvedic science is a boon for such cases through Shodhana and Shamana formulations. *ASTHISHRIKLA GHRIT MATRA vasti* is among such preparations. In this study, we will found the incredible effect of Vasti in osteoarthritis. *ASTHISHRIKLA* has strengthening effects on bones, joint, ligaments, and muscles. It is primarily used for treating the diseases related to these structures. It increases mineralization in the bone and promotes the formation of the mineral nodules. It promotes osteoblastic proliferation and differentiation. It increases bone mineral density (BMD) and reduces the susceptibility to bone fracture.⁽³⁾

Osteoporosis in Ayurveda is known as *Asthi-majjakshaya*. *Asthi-majjakshaya* is not actually named as a separate disease entity, but rather as one of several consequences which can emerge as a result of *Dhatu-kshaya*. In addition to being the well-known source of the functionally important hemopoietic tissues, *majjadhatu* also represents the collagen, fat and protein within the bones which provide strength and unctuousness. In *Charak Samita Sutrasthana* adhy.17 *Acharaya Charak* describes eighteen types of *dhatu-kshaya*. It is here that we first see a description which closely resembles our modern-day disease called osteoporosis. The signs and symptoms of this condition are described as thinness, brittleness and lightness of the bones, looseness of joints, hair loss from body and beard, tooth weakness, and unhealthy nails⁴.

The *samprapti* involves *vataprakopa* and degeneration of *Asthi-dhatu* which denotes craving for *Brimhana* therapy especially for *Asthi*. Looking through Ayurvedic point of view, *Charak* has expressed that disease caused due to *Asthidhatu* should be treated with *Panchakarma* therapy. He particularly emphasized on the use of *Snehabasti* and *kshirabasti* processed by drug having *Tikta Rasa*⁵. Treatment of *Vatavyadhi* in its *niramaavastha* is advised to be *Sneha chikitsa*⁶. *Ashtang Sangraha* has advised to take *Ghrith*, *Taila*, *Vasa* or *Majja* orally in such patients⁷. The *Matrabasti* is one of the type of *Anuvasana Basti* which can be administered to any individual any time. It doesn't manifest any *vyapada*. According to Ayurvedic literature it is administered in a smallest quantity without any restricted regimen related to food and habits. It is helpful in *Alpabala*, *Alpagni* and to



patients suffering from VataVyadhi^[8]. It acts as Balya and has Doshaghna property important and impressive theory given by Vagbhata in the text AstangaHridaya^{[8][9]}. This is a theory which describes the relationship between Dosha and Dhātu. Here is what is said: Vata resides in Asthi, in case of Vata and Asthi, if Vata *increases*, then Asthi *decreases* and vice versa. They are inversely related to each other. This relationship helps in knowing both the hetu and chikitsa of a vyadhi as nourishment of Asraya and Asrayi is similar.

MATERIAL AND METHODS

Single case study.

Clinical Intervention

A female patient aged 50 years was admitted in IPD of Panchakarma with complaints of bilateral knee, crepitus, joint pain, and restricted movements. It was a diagnosed case of Osteoporosis.

Associated Symptoms

General weakness, loss of appetite, Constipation.

History of present illness

Patient was well before one year. Then she gradually developed pain and difficulty in walking and sitting. Then she went to a nearby allopathic hospital and took allopathic treatment for more than 4 months but couldn't get satisfactory result. Then she came to our hospital and got admitted for better treatment.

Family History

Not Significant.

General Examination: on 1st Day

Pulse : 78/min

Blood Pressure : 122/86 mm of Hg

Pallor : -ve

Icterus : -ve

Clubbing : -ve

Cyanosis : -ve

Menstrual history: menarche at age of 14yrs

Hystrectomy done before 5 years for intramural fibroid of 12cm with heavy bleeding

4-5day
28 -30 days

regular
painful
Clots present



Systemic Examination

N.A.D.

Cardiovascular System

N.A.D.

Respiratory System

N.A.D.

Per Abdomen

N.A.

SUBJECTIVE CRITERIA

Shool (Pain):

	grade
No Pain	0
Mild pain after exaggerated by movement and subside by rest	1
Moderate degree of pain, not relieved by rest but not disturbing sleep or other routine activities	2
Severe degree of pain, disturbing sleep and other routine activities	3
Severe degree of pain, disturbing sleep and other routine activities and relived by analgesic	4

b) shrama (tiredness):-

	grade
No tiredness	0
Tiredness with excessive exertion	1
Tiredness with moderate exertion	2
Tiredness with mild excessive exertion	3
Tiredness with no exertion	4

OBJECTIVE CRITERIA

BMD Value (T Score): Osteoporosis: T Score less than or equal to -2.5.

Serum Calcium

Treatment protocol:-

1. vasti Karma

OBSERVATION:

	Before treatment	After treatment(period of 1.5 month)
Shool (Pain):	3	1
shrama (tiredness):-	2	1
sandhi shaithliya : weakness/ looseness of joints	2	1
BMD Value (T Score)	-2.8	Not yet done
Serum Calcium	7.8	8.3

3. sandhi shaithliya : weakness/ looseness of joints

	grade
No feeling of looseness / weakness in joints	0
Mild feeling of looseness / weakness in joints. Patient can stand / walk independently without difficulty	1
Moderate feeling of looseness / weakness in joints Patient can stand / walk independently with difficulty	2
severe feeling of looseness / weakness in joints Patient can stand / walk only with support	3
severe feeling of looseness / weakness in joints Patient unable to stand / walk even with support	4

In this study ASTHISHRIKLA GHRIT MATRA was selected for the management of Osteoporosis. As Vasti is known for its Vata Shamaka properties, so it was assumed that it will be proved better in the management of Asthi Kshaya, both in subjective and objective parameters. Vasti 60ml was given for a period of 21 days.

2. Shamana Chikitsa

Tab.Osteolief Nutra 1 BD

No other medication given to pt.

ASTHISHRIKLA GHRIT MATRA VASTI has shown marked improvement in all sign and symptoms i.e. pain and swelling was reduced, Stiffness reduced, Gait Improved, range of movements increased, serum calcium level increased.

DISCUSSION:-

ASTHISHRIKLA (*Cissus quadrangularis*) contains vitamins and steroid which has marked influence on the rate of healing by influencing early regeneration of all connective tissues involved in the healing. The acceleration in the healing was related to the stimulation of fibroblasts, chondroblasts and osteoblasts. Also, ASTHISHRIKLA builds up mucopolysaccharides, collagen calcium phosphorus leading to quicker mineralization of callus ^[10].

In a previous study, the authors reported significant decreases in the serum levels of TNF- α , IL-1 and IL-6 in C57BL/6 mice after ovariectomy on *C. quadrangularis* diet. And they concluded that *C. quadrangularis* effectively inhibited bone loss in the cancellous and cortical bones in these mice ^[11].

The role of nutrition in bone healing is the most important factor which influences bone healing. Calcium supplements are effective but increase blood Calcium cannot be achieved just by increasing the intake; the ability of calcium absorption from the intestines is also to be increased. ASTHISHRIKLA is reported to increase calcium uptake in animal studies ^[12]. Other studies reports that ASTHISHRIKLA can enhance bone mineralization by accumulating muco-polysaccharides at the

site of bone formation ^[13]. Phytochemical analyses of *C. quadrangularis* show the presence of high levels of calcium, flavanoids, vitamin C, and β -carotene, and some of these substances are known to possess beneficial properties on bone healing ^[14].

CONCLUSION:-

It was very encouraging to note that in the present case study, the patient was given only ASTHISHRIKLA **GHRIT MATRA VASTI** and patient was able to walk without any symptoms of pain, tenderness and other symptoms of asthi kshaya. However, more investigations are necessary to elucidate the precise mechanism by which ASTHISHRIKLA GHRIT MATRA VASTI influences bone metabolism.

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Cite article:

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Ayurlog: National Journal of Research in Ayurved Science- 2018; (6)(6): 1-7