

Role of Ayurveda in The Management of Asthikshay in Menopausal Women: A Case Study

Dr. Madhuri Bhalgat¹, Dr. Payal Gupta²

¹HOD & Professor, Dept. of Stree Roga and Prasuti Tantra, S.V.N.H Ayurved Mahavidyalaya, Rahuri, Ahmednagar, Maharashtra, India.

²Diploma in Stree Roga and Prasuti Tantra, Dept. of Stree Roga and Prasuti Tantra, S.V.N.H. Ayurved Mahavidyalaya, Rahuri, Ahmednagar, Maharashtra, India.

Abstract

The state of equilibrium of Dosha, Dhatus, Malas is health and its disequilibrium is known as disease. This disequilibrium may either be Vriddhi or Kshaya. Asthi is the fifth Dhatu among the seven Dhatus. It is the seat of vatadosha and carrying the function of dehadharana. Asthikshaya is one of the conditions described by Acharya Charak under 18 types of Kshaya in which there is Kshaya of Asthi Dhatu. According to the principle of Ashraya-ashrayee Bhava, Asthi & Vata are inversely proportional to each other regarding Vriddhi and Kshaya. Vriddhvata leads to Kshaya of Asthi Dhatu. The symptoms of Asthikshaya resemble to Osteoporosis which is a major health problem of the ageing population. It 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.

KEYWORDS: Asthikshaya, Ayurved, menopause

INTRODUCTION

Asthishaya, commonly known as osteoporosis in contemporary medical terminology, represents a significant health concern, particularly for menopausal women. Osteoporosis is characterized by diminished bone density and heightened bone fragility, leading to an increased risk of fractures. The transition into menopause, marked by the cessation of menstruation and a significant drop in estrogen levels, exacerbates the risk of developing osteoporosis. Estrogen plays a critical role in maintaining bone density by inhibiting bone resorption. As estrogen levels decline during menopause, bone resorption outpaces bone formation, resulting in weakened bones. Ayurveda, the ancient Indian system of medicine, offers a holistic and comprehensive approach to managing asthishaya. Rooted in the principles of balance and natural healing, Ayurveda provides strategies that encompass dietary modifications, lifestyle changes, and therapeutic interventions tailored to individual needs. The term "asthishaya" in Ayurveda pertains to a condition where there is an imbalance in the asthi dhatu (bone tissue). This imbalance is often attributed to an increase in vata dosha, which is predominant during the menopausal stage of life.

Understanding Asthishaya in Ayurveda:

Ayurveda conceptualizes health as a balance between the three doshas (vata, pitta, and kapha), the seven dhatus (tissues), and the body's waste products. Asthi dhatu is one of the seven dhatus and is vital for

structural integrity and support. During menopause, the natural increase in vata dosha can lead to the depletion of asthi dhatu, resulting in symptoms such as joint pain, back pain, decreased height, and an increased susceptibility to fractures.

Aims and Objectives:

1. Study the Asthikshaya management in menopausal stages with help of Ayurveda.

Methods and materials:

Asthikshaya is examined through a variety of Ayurvedic Samhitas, whereas osteoporosis is studied through contemporary literature and database searches including PubMed, Google Scholar, and other research publications.

Asthi dhatu:

Asthi is one of dhatu mentioned in total seven Dhatus. Others are Rasa, Rakta, Mamsa, Meda, Majja and Shukra. Asthi is at fifth place in nourishment sequence. Means Rasa dhatu gets first nourishment, then Rakta dhatu, then Mamsa dhatu etc. This is the hardest and firmest dhatu in the body Gets its nourishment from Meda dhatu It is predominantly made up of Pruthvi Mahabhuta (Pruthvi or Prithvi means “earth”). The qualities of this dhatu are strong, rough, dry and hard. The function of asthi dhatu is “dharana” or support; it keeps the body erect. All the soft structures like muscle, vessels and nerves are found around this Dhatu Asthi dhatu gives shape to the skeletal body and protects vital organs such as the heart, lungs etc.

Relation between Vata dosha and Asthi dhatu :

Asthi dhatu and Vata dosha are related to one another. Asthi dhatu kshay is the outcome of Vata dosha vitiation, and vice versa. The term for it is Ashraya Ashrayi Sambandha.

Symptoms of Asthikshaya according to different Samhitas:

Symptoms	Charaka	Sushruta	Ashtang Sangraha	Ashtang Hrudaya	Bhavaprakash	Harita Samhita
Kesha vikara	+	-	+	+	-	-
Loma vikara	+	-	+	+	-	-
Nakhavikara	+	+	+	+	+	-
Smashruvikara	+	-	-	+	-	-
Dantavikara	+	+	+	+	+	-
Shrama	+	-	-	-	-	-
Asthi Toda	-	-	+	+	-	-
Ruja	-	-	-	-	-	+
Asthi Shula	-	+	-	-	+	-

Symptoms	Charaka	Sushruta	Ashtang Sangraha	Ashtang Hrudaya	Bhavaprakash	Harita Samhita
Ruja	-	-	-	-	-	+
Sandhishaitilya	+	-	+	-	-	-
Rukshata	-	+	+	-	+	-
Parushya	-	-	+	-	-	-
AsthiBaddha Mamsabhilasha	-	-	+	-	-	-
Angabhanga	-	-	-	-	-	+
Atimandacheshhta	-	-	-	-	-	+
Medakshaya	+	-	-	-	-	+
Viryasyamandya	-	-	-	-	-	+
Vikampana	-	-	-	-	-	+
Vamana	-	-	-	-	-	+
Visangnata	-	-	-	-	-	+
Shosha	-	-	-	-	-	+
Kathorata	-	-	-	-	-	+
Shopha	-	-	-	-	-	+

Modern Review:

The term Osteoporosis was coined by Pommerin in 1985 which literally means “porous bones”. Greek word osteon means the bone tissue & po-rosis is derived from latin word “porous” which means “full of pores”. Thus combined meaning of the word Osteoporosis is porous bones. The most important risk factor for osteoporotic fractures is reduced bone mass. During growth, bone mass increases between the ages of 25 & 35 and falls thereafter in both sexes. It is most common in women than men due to oestrogen deficiency at the age of menopause. Genetic factors are important in the pathogenesis of Osteoporosis. Family studies suggest that genetic influences are accounted for 70-85% of individual variance in bone mass.

Classification of Osteoporosis:

Primary Osteoporosis & Secondary Osteoporosis Symptoms:

Fracture after minimal trauma, Joint pain, Low back pain, Neck pain, Stiffness of joints, Bony tenderness, Deformity of joint, Deformity of spine (Kyphosis).

Diagnosis:

A. Bone Mineral Density:

Plain radiographs are often normal in patients with Osteoporosis who do not have fractures & BMD measurements should be reserved for patients where there is reason to suspect the diagnosis on clinical level.

Indication –

1. Early menopause.
2. Hypogonadism.
3. Family history of Osteoporosis
4. Previous fractures after minimal trauma
5. Smoking /alcohol abuse
6. Poor diet
7. Steroid therapy.

The World Health Organization has established the following diagnostic guidelines- T-score: -1.0 or greater is normal T-score between: -1.0 & -2.5 is low bone mass (Osteopenia) T-score: -2.5 or below is

Osteoporosis.

B. Radiographs:

Osteoporotic spinal fractures can be confirmed by typical wedge shaped appearances of affected vertebra. Biochemical measurements are not usually helpful in diagnosis of Osteoporosis, serum alkaline phosphatase may be transiently raised following a fracture but as sustained elevation suggests an alternative diagnosis is such as Osteomalacia. Bone biopsy is not routinely required except to exclude other pathology.

Case study :

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.

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:

Pulse : 78/min

Blood Pressure : 120/80mm of Hg

Pallor : -ve

Icterus : -ve

Clubbing : -ve

Cyanosis : -ve

Menstrual history: 1. menarche- at age of 14yrs.

2. Menopause- at 47 yrs.

- Systemic Examination-N.A.D
- Cardiovascular System-N.A.D.
- Respiratory System-N.A.D.
- Per Abdomen-N.A.D

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

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

OBJECTIVE CRITERIA:

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

Treatment protocol :

Basti Karma

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.

Shamana Chikitsa

Tab.Osteolief Nutra 1 BD

- Ashwagandhadi Churna 500mg, Kukkutandatwaka Bhasma 125mg, Godanti Bhasma125mg, Muktashukti60mg in two divided doses with honey
- Dietary Interventions:Calcium-rich foods such as sesame seeds, almonds, dairy products, and leafy greens.
- Lifestyle Modifications:Regular physical activity, including weight-bearing exercises and yoga.

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

Patient 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:

The management of asthishaya (osteoporosis) in menopausal patients through Ayurveda offers a multifaceted approach that integrates dietary, lifestyle, and therapeutic strategies. This holistic methodology not only targets the symptoms of bone density loss but also addresses the underlying imbalances that contribute to the condition. This discussion elaborates on the effectiveness and implementation of Ayurvedic management practices for asthishaya, examining their potential benefits .

Therapeutic Interventions (Chikitsa)-

Ayurvedic therapeutic interventions are designed to detoxify the body, rejuvenate tissues, and restore balance. Panchakarma, a set of purification therapies, includes procedures like Basti (medicated enema), which helps balance vata and rejuvenate the body. Rasayana therapy, aimed at promoting longevity and tissue health.

Dietary Interventions:

One of the cornerstones of Ayurvedic management for asthishaya is dietary modification. Calcium-rich foods such as sesame seeds, almonds, dairy products, and leafy greens are emphasized to support bone health. These dietary choices are aligned with modern nutritional recommendations for osteoporosis, underscoring the importance of calcium in maintaining bone density. Additionally, the Ayurvedic focus on a vata-pacifying diet, which includes warm, nourishing foods, helps mitigate the vata imbalance that is believed to exacerbate bone degeneration during menopause.

Lifestyle Modifications-

Lifestyle adjustments are integral to the Ayurvedic management of asthishaya. Regular physical activity, including weight-bearing exercises and yoga, is essential for maintaining bone strength and flexibility. Yoga, in particular, not only strengthens bones but also enhances balance and coordination, reducing the risk of falls and fractures.

CONCLUSION:

Ayurvedic management of asthishaya in menopausal patients presents a holistic and natural approach that emphasizes balance and overall well-being. By integrating dietary modifications, herbal remedies, lifestyle adjustments, and therapeutic interventions, Ayurveda offers a sustainable and effective strategy for managing osteoporosis. This approach not only addresses the symptoms of bone density loss but also promotes holistic health, making it a valuable complement to conventional treatments.

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