

**CONCEPTUAL STUDY OF JARA WITH SPECIAL REFERENCE TO
OSTEOARTHRITIS CHANGES AND ITS MANAGEMENT THROUGH AYURVEDA****Dr. Suryakant D. Rokade^{1*}**^{1*}Professor and HOD, Dept. of Rachana Sharir, Govt. Ayurved College, Nanded, Maharashtra- 431601.***Corresponding Author: Dr. Suryakant D. Rokade**

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Article Received on 15/10/2018

Article Revised on 05/11/2018

Article Accepted on 25/11/2018

ABSTRACT

Jara (aging) is the natural process of life. *Jarachikitsa* is one of branch of *Ayurveda* mention in *Ashtang Ayurveda*. *Asthi dhatu* has prime importance in *rachanatmak* and *kriyatmak* point of view. *Ayurveda* has given two important remedies *Rasayana* and *Panchakarma* for delaying *jara avastha*. The word *Rasayana* should not be mistaken as a therapy exclusively related to old age. It prolongs and provide positive health and improve mental faculties. There is classification of age and dominant of different *Dosha* in different age group of life stated in different classical text of *Ayurveda*. In elderly people there is dominant of *Vata dosha* leads to various *Dhatukshayajanya vataj vikar*. The proposed study aims to describe various *Rachanatmak* changes osteoarthritis in old age and their management through *Ayurveda* with the help of *Panchkarma* and *Rasayana* therapy. According to modern science geriatrics medicine is a specialty that focus on health care of elderly people. It aims to promote health by preventing and treating diseases and disabilities in older adults. The aged body is different physiologically from the younger adult body, the decline of various organ systems becomes manifest. There are progressive changes in various system of body including psychological changes. Elderly peoples are more prone to disorder related to musculoskeletal system due to loss of bone density. Bones are more fragile and are more likely to break. After menopause females are suffer from osteoarthritis affecting the daily routine of life. As people age, their joints are affected by changes in cartilage and in connective tissue leads to formation of osteophytes affecting the normal physiological activity of person. Through the critical analysis of the literature it is found that *Ayurveda* has given remedies in the form of *Panchkarma* and *Rasayana* (rejuvenation) drugs.

KEYWORDS: *Vata dhosha, Dhatu, Jara, Osteoarthritis, Panchkarma, Rasayana.***INTRODUCTION**

Ayurveda is the science of life. *Jara chikitsa* is integral part of *Astang Ayurveda*.^[2] *Jara* (Aging) is natural catabolic procedure. *Jara* means the later part of life, the period of life after youth and middle age. In *Jara avastha* maximum decline of bodily element i.e *Dhatukshaya* is observed with external appearance of person and diminish in the normal physiological function of body.^[5] *Asthi dhatu* is fifth *dhatu* has prime function in *dharan karma* or supporting function also provide nourishment to *majja dhatu*. According to *Acharya chakrapani Dhatukshaya* takes place at every moment of life and it is comparatively faster in older age of life. In *Sharangdhar Samhita* they have described decade wise decline conditions. In the 1st decade *Balyavastha* will be diminished, in the 2nd decade *Vridhi Hani*, in the 3rd decade *Chhavi Hani*, in the 4th decade *Medha Hani*, in the 5th decade *Twak Hani*, in the 6th decade *Drushti Hani*, in the 7th decade *Shukra Hani*, in 8th decade *Vikrant Hani*, in 9th decade *Buddhi Hani*, in 10th decade *karmendriya Hani*, in 11th decade *mann Hani*, in 12th decade *Jivan Hani*.^[10]

AIMS AND OBJECTIVE

To explain and explore the concept of *jara* through *Ayurveda* and modern science with special reference to osteoarthritis and its management through *Ayurveda*.

MATERIALS AND METHODS

Bruhatrayee along with their commentaries by different authors were referred for the study. References from the modern science books and various websites utilized to co-relate the concept.

DISCUSSION

Acharya sushruta has mention three types of age group *Balya avastha*, *Madhyam avastha* and *Vridha avastha*^[6] Upto 16 years *Balya avastha*.^[6] from 16 to 70 years *Madhyam avastha* and above 70 years is *Vridha avastha*.^[4] According to WHO set 55 years as the beginning of old age. Geriatric medicine is the branch of medicine concerned with the diagnosis, treatment and prevention of disease in older people and the problem specific to aging. In developing world often defines old age, not by years, but by new roles, loss of previous roles, or inability to makes active contributions to

society. Natural process of aging has also become fast due to changes in environment, improper dietary habits, lack of exercise, food cultivation with chemical fertilizers, pesticides and because of food processed through modern technology. Consumption of this type of food and toxin accumulation in the body causes premature aging. Another most important cause is excess psychological stress. Hence, the aging changes appear earlier. These factor produces various degenerative changes and various metabolic disorder in our body. Mostly peoples are suffering from osteoarthritis. In older people various anatomical and normal physiological changes takes place in bones affect the daily routine of life. In modern science only symptomatic treatment is available for osteoarthritis but the goal of Ayurveda is to promote the health and manage the disease.

Rachanatmak changes in osteoarthritis

In *jara avastha* there is dominance of *vata dosha*.^[3] In *vriddhavastha vata vyadhi*, *sandhigatavata* is the commonest form of articular disorder, which limits our everyday activities. This is the *Dhatukshayajanya avastha* of body.^[14] It is located in *marmasthisandhi* and its occurrence in old age makes it *kashthasadhya*. *Shula Pradhan vedana* is cardinal feature of the disease associated with *sandhishotha*, *vata purna druti sparsha*, lack of movement of joints or painful moments of joints.^[14] These symptoms are very much similar to osteoarthritis.

Osteoarthritis is a chronic degenerative disorder.^[13] It is commonly found in old age so it also normal part of aging. There is gradual deterioration of the cartilage in a joints, the people who are overweight and the people has jobs with high level of joint stress, inherited factors, abnormal joints or limb development. Osteoarthritis is believed to be caused by mechanical stress on the joint and low grade inflammatory processes. It is a type of joint disease that results from breakdown of joint cartilage and underlying bones. The formation of hard knobs at the middle finger joints known as Bouchard's nodes and at the farthest finger joint known as Heberden's nodes are a common feature of osteoarthritis in the hands.^[13] The most common symptoms are joint pain and stiffness other associated symptoms may include joint swelling, decreased range of motion. Initially symptoms may occur only following exercise, but over time may become constant. When the back is affected, weakness or numbness of arms and legs. The most commonly involved joints knee, hips, back, neck, near the ends of fingers, at the base of the thumb.^[13]

Normal cartilage is a complex material consisting of a solid matrix composed primarily of collagen and proteoglycan, which is saturated with water. It is not homogenous material. The interaction of physical and biochemical structures of cartilages is necessary to allow the normal function of providing nearly frictionless motion, wear resistance, joint congruence and transmission of load to subchondral bone.^[16]

Chondrocytes are responsible for synthesizing and maintaining this material osteoarthritis occur when there is disruption of normal cartilage structure and homeostasis. This non-inflammatory disorder may follow a trauma or be a complication of malformations at birth. Osteoarthritis affect the cartilages on the ends of bones between joints. Healthy cartilages are smooth and prevent friction when the joint surfaces rub each other. It has a cushioning effect in the joint and acts as a shock absorber when there are physical movements. The cartilages are wear off and the surfaces of the bones become rough. Rubbing together then causes pain, swelling and loss of motion of the joint.^[15] There is possibility of bone spurs or osteophyte formation, these spurs are so painful affecting normal routine. After menopause age 45-55, more women than men will develop it and women often have it more severely. Female hormone has an effect on the cartilage that sits between the bones of joints and allow the joints to move about smoothly. In laboratory studies of cells that form cartilage, experts have found that the female estrogen protects cartilage from inflammation can lead to osteoarthritis. But after menopause when women's estrogen level goes down, they lose that protection and may have a higher risk of developing osteoarthritis even if they are on hormone replacement therapy. Osteophytes often develop in joints that show signs of degeneration. They are associated with the most common types of arthritis, osteoarthritis. An osteophyte is a smooth bony growth or deposit, also referred to as a bone spur. They grow slowly over time and often have no symptoms. They can cause pain if they impinge on other structures or grow so large as to restrict movement in a joint.

Effect of Panchakarma therapy and Rasayna in osteoarthritis

Ayurveda is a holistic approach to healthcare with roots in ancient India. According to *Ayurveda*, osteoarthritis occurs due to accumulation of *vata dosha* is called *sandhivata*.^[6] The *vata dosha* is one of the important bio-regulating principles of the body. It is aggravated by various reason most commonly in *Jara avastha*. *Vata is Rooksha* (dry) in nature.^[14] when *vata* get aggravated in any of the joints, dries up the synovial fluid in the joint capsule. Degeneration of the joint and causes destruction of the cartilage. *Sandhivata-osteoarthritis* gradually worsens with time, and no cures exists. But *Sandhivata-osteoarthritis* treatment can prevent the progression of the disease, relieve pain, rejuvenates damaged cartilages, improves joint lubrication, function and strength.

Sandhivata-osteoarthritis treatment includes both *samana* and *shodhana chikitsa*.^[7] *Saman chikitsa* include oral medication. *Shodhana chikitsa* include *panchakarma* therapy for rejuvenation. Early diagnosis and treatment is the key controlling *sandhigatavata-osteoarthritis*. *Panchakarma* procedure like *snehana*, *swedana* are required around period.^[9] *Rasayan chikitsa* has prime importance in *jara avastha*. *Rasayana* deals with measures, medicine, treatment and formulation

which bring about delay in ageing process and also helps in maintainance of health in old age, apart from providing strength and immunity at the dusk of age and also curing the diseases manifested at senility.^[1]

CONCLUSION

There is reduction in bone density, destruction in joint cartilage, inflammation of joint causes arthritis changes. In some cases, osteophytes formation which cause painful movement. The *rachanatmak* changes in osteoarthritis in *jara avastha* treat through *Ayurveda* by *Panchakarma* therapy and *rasayan chikitsa*. It has goal of managing osteoarthritis includes reliving pain, maintaining and improving range of movement and stability of affected joints and limiting functional impairment. *Panchakarma* minimize the *rooksha guna* of *vata dhosha*. This *rasayana chikitsa* is best applicable only after *shodana chikitsa*. Regular use of *Rasayan dravya* provides long life, memory, intelligence, diminish ageing and strenght to body and mind.

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