An Appraisal of Jalokaavacharan in Osteoarthritis W.S.R. Knee Joint Pain

[1]Dr Varsha Chaudhar,[2] Dr Harish Daga, [3]Dr Omprakash Dav,[4] Dr Hari Shankar Paliwal

[1]Post Graduate Scholar, Department of Shalya Tantra Parul Institute of Ayurveda, Vadodara, and Gujarat.
[2]Assistant Professor, Department of Shalya Tantra Parul Institute of Ayurveda, Vadodara, Gujarat.
[3]Professor, Department of Shalya Tantra Parul Institute of Ayurveda, Vadodara, Gujarat
[4]Assistant Professor Department of Shalya Tantra Parul Institute of Ayurveda, Vadodara, Gujarat.

Abstract: The senior population is rapidly increasing over the globe. People in their older years are more susceptible to a variety of illnesses. The most frequent condition in Sandhivata is osteoarthritis, which causes muscle tension in the afflicted joint.Sandhivata is described in all Samhitas by Acharyas under Vatavyadhi chapter. It is described as maharoga by Acharya Vagbhata. Sandhivata is vata dominating disease which creates degenerative and inflammatory changes in joints. Knee joint suffers most as it is most frequently involved joint in daily routine and it bears maximum load of body weight. It is well known fact that, there is no specific line of treatment and no complete cure for Sandhivata in other medical branches. NSAIDs are the most often prescribed drugs in contemporary medicine, although they have several negative effects and are not suitable for long-term usage. Ayurveda, the ancient Indian system of medicine, has recommended a number of innovative remedies to battle withering and maturity level disorders. Bloodletting, or Raktamokshan, is an old and significant parasurgical method described by ancient Ayurvedic literature for the treatment of many ailments. One of these, Jalaukavacharana or Leech treatment, has earned international recognition due to its medicinal benefits. Leech saliva includes a variety of physiologically active chemicals with pro government and anesthetic characteristics. Saliva contains responcibility (Hirudin, bufradin), antiplatelet (calin, saratin), factor Xa inhibitory (lefaxin), antibacterial (theromacin, theromyzin), and other bioactive peptides and proteins. Glucosamine, ADP, and adrenaline all cause prostaglandin synthesis, which is inhibited by saliva.

Keywords: Aging, Jalaukavacharana, Knee Joint, Leech Therapy, Sandhivata.

1. INTRODUCTION

In all of the Hindu scriptures and Sangraha Grantha, sandhigata vata is mentioned under vata vyadhi. The term Sandhivata is made up of two parts: Sandhi, which refers to the anatomical side of the body, and Vata, which refers to the biological area of the body. All Dhatus experience Kshaya (Degenerative alterations) in jaravastha, resulting in Vataprakopa and exposing the person to a variety of vataj illnesses. Sandhivata is at the forefront among seven.Acharya Charaka described the Disease separately as Sandhigata Anila but not included under Nanatmajvikar[i]Acharya Vagbhata has also considered Vatavyadhi as a Maharoga. Involvement of Madhyam Rogamarga, vatadosīha and Dhatukshaya figure Disease Kricchasadhya [1].

Adulthood is connected with a number of detrimental bodily changes. Its most frequent kind of inflammatory changes is osteoarthritis. The term "psoriatic arthritis" comes from the Greek word "osteo," which meaning "bone." "Arthro" refers to joints, whereas "Ities" refers to inflammation. Chronic and progressive arthritis is another name for arthroplasty. Mediocre the irregular wear of the meniscus that covers and acts as a cushion within the joints causes joint inflammation. Due to a reduction in extracellular matrix, the patient shows discomfort in weight-bearing joints. Osteoporosis is one of the top five illnesses designated by the World Health Organization as "Globel disease burden." Osteoarthritis is becoming more common as the population ages, as well as other causes like as obesity and a healthy lifestyle. Radiographic indication of O.A. may be found in 80 percent of elderly adults, while only 25-30 percent are asymptomatic.

Plasma pouring, or Raktamokshan, is an old and fundamental parasurgical operation described by ancient Ayurvedic literature for the treating of many ailments. One of these, Jalauka vacharana or Gypsy treatment, has attracted international notice due to its medicinal benefits. Leech saliva includes a variety of physiologically active chemicals with anti-inflammatory and anesthetic characteristics. Saliva contains responcibility (Hirudin,bufradin), antiplatelet (calin,saratin), factor Xa inhibitors (lefaxin), bactericidal (theromacin,theromyzin), and other bioactive free amino acids. Aggregate aggregate caused by collagen, ADP, and adrenaline is inhibited by Leech Saliva. It

also prevents neutrophils from producing oxidant when they are activated by tetradecanoyl phosphatidyl propionate or polyhistidine [2].

A Case of 65 years old male patient presented with chief complains of both knee joint pain since 9 months .Walking and climbing the stairs aggravated the Pain. The pain relieved by Resting. The knee pain hampered his daily routine activities. On examination found tenderness on touch, Swelling, Crepitus and Range of movement is restricted. The patient had taken NSAIDs but there was no satisfactory relief seen. In radiological examination narrow joint space found. Figure 1 shows the joints structure of the system in the field. Figure 2 embellished the wound on the leg of the user. Figure 3 discloses the joint structure in an appropriate manner.

Figure 1: Illustrated The Joint Structure of The System.

Figure 2: Illustrated The Wound On The Leg of Human Being

Figure 3: Illustrated The Joints In An Appropriate Manner with help of X Ray.

1.1.Criteria of Assessment:

- Sandhi shula (Joint pain)
- Sandhigrah (joint stiffness)
- Sandhi sotha (joint Swelling)
- Aakunchan Prasaranjanya Vedana(pain during Flexion & extension) [3].
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Table: 1 Illustrated the Basic Structure of the Human Body.

PAIN(VAS)	SWELLING	TENDERNESS
0-1= No pain	0= Nil, no swelling.	0=Nil, no tenderness.
2-3= Mild pain.	1=Mild, Feeling of Swelling with heaviness of joints.	1=Mild, elicited on much pressure.
4-5=Uncomfortable	2= Moderate, appetent Swelling.	2=Moderate, elicited on Moderate pressure.
6-7= Distressing.	3=Severe, huge Swelling.	3=Severe, elicited on slight touch.
8-9=Intense.	-	-
10=Worst possible.	-	-

Table: 2 Illustrated the Movement of The Body.

Restriction of movement:	Stiffness:	Crepitus:
0=Absence of movement restriction.	0= Nil, no morning Stiffness.	0=Absence of Crepitus.
1=<25% restriction of movement.	1=Mild, morning stiffness of 5-10 minutes duration.	1-Mild perception on touch.
2=25-50% restriction of movement.	2=Moderate, morning stiffness of 10-15 minutes duration.	2=Moderate, audible on attention.
3=>50% restriction of movement.	3=Severe, morning stiffness of 10-30 minutes duration.	3=Severe, Clearly Audible.

1.2.Method of Leech application

- Purva karma
- Haridra, clean water, Gauce piece, sterile needle, and cotton kept ready.
- Snehan and Swedan of Patient done.
- Purification of leech in Water mixed with Haridra powder.
- Pradhan karma

Application of leech done with prior prick of needle on desired point of knee Cloudy fiber was used to coat the Leech via between front ends. After 40 minutes of successful application of the Leech it was detached by itself then wound was dressed with the help of haridra powder [4].

- *Paschat karma*

Induction of emesis of Leech: The haridra powder was sprinkled on mouth of leech for smoothly reversal of sucked blood as vomit of sucked blood is helpful must be cleansed in preparation for leach for appropriate emesis, the leech was pressed from the spinous processes to the front end. The change can affect Fish was maintained in groundwater after that the 45 minutes to an hour was removed, where it swims quickly.

Nausea and stiffness were seen to lessen when the trial was completed. Jalokaavacharana. After 2-3 days there is significant changes in swelling, tenderness and restricted movement. There is no significant changes seen in crepitus sound. No any significant allergic reaction observed at jaloka avacharan site. No radiological changes found after study [5].

Table 3: Illustrated the Basic Symptoms of the Leech Therapy.

SYMPTOMS	BEFORE LEECH THERAPY	AFTER LEECH THERAPY
PAIN(VAS)	5	2
SWELLING	2	1
TENDERNESS	3	1
RESTRICTION MOVEMENT	3	1
STIFFNESS	3	0
CREPITUS	3	1

2. DISCUSSION

In review of ancient system of medicine practice, it is evident that many incurable wounds and other skin diseases were the use of leech was beneficial in treating the problem. Leech treatment, which is now being widely used for managing pain during historical, has never really been studied for its analgesic impact in contemporary medicine. The impact is explained by a variety of mechanisms. Numerous pharmacologically active compounds, including histamin-like potentiators, study thus provides, and tryptase inhibition, multiple various cathepsin repressors, and anesthetics, have been identified in leech saliva in addition to the procoagulant hirudin [6]–[9].

3. CONCLUSION

Chemicals may reach deeper tissue zones and perhaps the joint region due to the simultaneous action of another leech saliva component, hyaluronidase. However, it is unclear if pain relief in osteoarthritis requires direct contact with the meniscus and submucosa. The many bioactive chemicals found in leech mouth may be just as pharmacodynamics strong as heroin, causing significant effects in the subchondral bone tissue and surrounding

structures. Chronic pain is exacerbated by other peripheral nerve responses. Leech treatment may provide pain relief by acting as a meet the special needs.

Anesthetic chemicals are also found in the saliva of leeches. Probably, this aids in the reduction of pain and soreness. Antioxidant and anti - inflammatory and anti-irrigative effects also aid in pain alleviation. However, it is unknown how much a leech bite may trigger such a process. It's possible that homeopathic medicines are to blame for symptom improvement. The traditional Jaloka avacharan is effective in osteoarthritis of knee. It give symptomatic relief. All parameters viz, sandhisula, sandhigraha, sandhisopha etc significantly reduced. No other pharmacological agent have similar lasting effect after single administration.

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