

CONCEPT AND RELEVANCE OF *JALOOKAVACHARANA* IN THE FIRST STAGE OF PERIARTHRITIS OF SHOULDER JOINT

Anu P Sunder^{1,2}, Sreelekha², Aneesh³

¹PG Scholar, Department of *Salyatantra*, Govt Ayurveda College, Thiruvananthapuram.

²Assistant Professor, Department of *Salyatantra* Govt Ayurveda College, Thiruvananthapuram.

³Associate professor, Department of *Salyatantra*, Govt. Ayurveda College, Thiruvananthapuram

Corresponding Author: anusunder9@gmail.com

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ABSTRACT

Periarthritis of the shoulder joint is a painful, progressive, and disabling disease. The structures involved in the disease are joint capsules, tendons, ligaments, and bursae. The disease progresses through three unique stages: a stage of pain, a phase of stiffness, and a stage of recovery. In the conventional system, the treatment modalities involve using anti-inflammatory drugs and corticosteroid injections in the initial phases and surgical decompression in the later stages. This only gives symptomatic relief and has its complications. The initial stages of the disease present with *Amsa ruk* (Shoulder Pain) and *Amsasandhi Sopha* (swelling of shoulder joint) of *kapha pitta* predominance with *Raktadusti*. The procedures like *lepana*, *upanaha* and internal medications adopted in this stage do not give permanent and complete relief from symptoms. Thus, by considering the dosha vitiation in the initial phases of the disease, *Jalookavacharana* (Leech Therapy) would be an appropriate intervention since it has anti-inflammatory and analgesic effects.

Key words: Periarthritis, *Jalookavacharana*, Leech Therapy

INTRODUCTION

Ayurveda, the system of medicine, is the science that imparts knowledge about life. Compared with other

systems of medicine, the Ayurvedic system is well-equipped with various treatment modalities. Apart

from the conservative drug therapy of modern medicine, Ayurvedic conservative treatment is again divided into *shodhana* and *samana* therapies. *Samsodhana* is the term used for various eliminating procedures. *Rakthamokshana* is considered as one of the panchakarma processes by the *Dhanwanthareeya* system of medicine [1]. *Raktamokshan* is the fifth main karma of *Panchakarma* therapy and has been listed by *Susrutha*. *Rakta Moksha* is practiced in blood-borne disease, in *pitta* predominant diseases and also in few *vata* disorders. In *Astanga Sangraha*, described that the *Sweda* and *Rakta* resemble *pitta* due to the intimate relation of *Asraya* and *Asrayi*, thus *Raktamokshan* becomes the choice of the treatment in *Pitta* and *Rakta* disorders. *Rakthamokshana* is one among [2] *shashtirupakrama*. It is used for *vedana Upashamana* (mitigate pain), *paka samana* (subsiding swelling), in *achirothpathitha* *Sopha* (swelling of recent organ).[3] Even in wounds which have swelling, which are hard, dark, containing blood, painful, deep and uneven, *Rakthamokshana* is beneficial. Incurable diseases by *Seetha* and *rooksha* therapies be easily treated by *Rakthamokshana*. [4] According to statistical analysis, the occurrence rate of shoulder joint Periarthritis within the broader community ranges from approximately 2% to 5%. This ailment frequently targets individuals aged between 40 and 60 years.[5] The condition is uncommon among children. Moreover, it is more prevalent in women than in men and tends to be more prominent among those with diabetes.

The normal course of this disease includes three consecutive stages: first stage, which shows freezing [6] or painful condition, which may last from 6 weeks to 9 months. The second stage shows frozen or adhesive pathology. It is marked by a slow improvement of pain, but the stiffness remains. Third stage includes thawing or recovery level, when shoulder movements return to the normal stage. This generally lasts from 5 months to 2 years. As the shoulder movements are painful, the disease makes the housewives, IT professionals, skilled workers, weightlifters and sportsmen life miserable. This restricts the person from doing day today activities.

Hence *Jalookavacharana* would be appropriate in the first stage of the disease having shoulder pain and swelling around the shoulder joint.

AIM

Relevance of *Jalookavacharana* in the first stage of Periarthritis of shoulder joint based on the *dosha dushya* involved.

MATERIALS AND METHODS

It is a conceptual study. Datas on *Raktamokshan*, *Jalookavacharana* and Periarthritis of shoulder joint and its action on first stage of disease based on *dosha* and *dushya* is gathered from Ayurvedic classic literature books and Modern texts with contemporary texts including websites and organized in a systematic manner.

IMPORTANCE OF RAKTAMOKSHA (BLOOD LETTING PROCEDURE)

According to *Sabdha kalpa druma* and *Vachaspatyam*,

"*Ekaasthu kriya sarva rakthamokshanamekatha*"

"That is effect of *Rakthamokshana* is equal to all other treatments. If all the treatments are at one side and bloodletting alone is at other side shows the importance of the *Rakthamokshana*. It is mentioned in the *chikitsa of visarpa* in *Ashtanga Hridaya*. As per *Vridha vagbhaṭa*, *Rakthamokshana* is *Chikitsardha* or even *sampoorna chikitsa* in *Salyatantra*, just as *vasti* is described as half the treatment or even full treatment for all the diseases [7] of *Kayachikitsa*. *Raktha* is the moola of pain and without the involvement of *raktha* no pain occurs". *Raktha* is the seat for all diseases, and no other *dushya* get vitiated than blood in patients of such diseases, so *Rakthamokshana* is the first and important intervention. The effects of *Raktamokshan* are that those who are undergoing blood-letting therapies regularly as a routine they never suffer from *raktha* doshas (skin problems), *granthi* (cysts & tumors), *sopha* [8] (inflammation). *raktha rogas* (*kushta*, *Neelika*). With removal of vitiated blood, redness and pain subside immediately. One who has undergone bloodletting based on apt conditions and *dosha dusti* he will be feeling pleasantness of mind and body, sharpness of sense organs, good digestive power, easy evacuation of urges, feeling of

healthy, wellbeing, strength all throughout the life. *Raktamokshan* is divided to two principal types, which is done with the help of sharp instruments, with *shastravisravana* others with the help of blunt instruments and leeches called as *Anusastra*. One of the methods of removing vitiated blood from the body is *Jalookavacharana*. It is indicated in conditions having deep seated pathology also.

Jalookavacharana:

It is leeching out blood which is simplest to treat the blood borne diseases. Leeches are applied to such patients who are afraid of surgical instruments, especially children, old aged, persons of delicate constitution like those of royal family, the rich women and the weak. *Sukumara prakriti* patients are included in this category who can't take any hardships for surgery. The word "*sughina*" is meant for this. Methods of removing blood from the body using *Jalooka* is considered as the most easy and convenient one. By the removal of vitiated blood, the redness, swelling, burning sensation and pain subsides immediately. According to *Vagbhata Acharya* in *Vatashonitha Chikitsa*, to relieve *ruk* (pain), *raga*(redness), *daha* (burning sensation), *Thoda* (pricking pain), *Jalookavacharana* is indicated.[9]

PROBABLE ACTION OF JALOOKAVACHARANA

Jalookavacharana or leech therapy was used since the time of ancient Egypt. They have been used in medicine to treat abnormalities in nervous system, dental problems, skin diseases and infections. Now a days they are mostly used in plastic surgeries and other microsurgies. It is claimed as the supreme treatment due to high efficiency and safety of the procedure.

Jalookavacharana can counteract the *gunas* [9] of *pitha* dosha. This can cut short or correct the progression of disease from freezing to frozen stage thus by avoiding stiffness. The *ruksha guna* of *vata* that in-

creases pain is nullified by the *snigha guna* of *Jalooka*. The *teekshna ushna* nature of *pitha* [10] dosha which aids inflammatory cascade is acted upon by the *seetatwa* attributed by *Jalooka*. *Asudha rakta* which is drained off by *Jalookavacharana* cures the *sanga of srotas*. The normalcy of *srotas* helps in the healthy movement of *vata* dosha performing *prakrita karma*. Thus, the healthy blood circulation provided in the area supplies the joint with pure gush of blood which does the normal function of vitality, essence, complexion and provides active range of movements.

EFFECT OF JALOOKAVACHARANA IN SHOULDER JOINT

The shoulder joint is the most movable joint in human body. It provides wide range of movements, but the joint is highly unstable and insecure. The disease affects in and around shoulder joint mainly the joint capsule. Joint capsule is fibrous sheath which encloses structures of shoulder region. It extends from anatomical neck of humerus to border of glenoid fossae. Synovial membrane lines the inner surface of joint capsule.

Pathology of first stage of Periarthritis of Shoulder joint involves fibroblastic proliferation in shoulder joint capsule results in synovitis and capsulitis. Mode of action of leeching includes two different ways. 1. By sucking blood. 2. Injecting bioactive substances. By sucking blood, it relieves blood congestion of affected site. It lowers the pressure in diseased area. It facilitates the inflow of oxygenated blood and nutrient blood. It improves the health status of regional tissue by relieving inflammatory pathology. Leech therapy restores microcirculation damaged vascular permeability of tissues and organs, increase immunity, and bioenergetic status of the organism. This is aided by bioactive secretions in the saliva of leeches.

Table 1. The Composition of Leech Saliva and their Actions

1.Hirudin	Potent anticoagulant. inhibits the conversion of fibrinogen to fibrin
2.Calin	Induces secondary bleeding which can last up to 12 hours.
3.Hyaluronidase	Spreading and penetrating factor.it helps dissolution of thrombus and has antibiotic properties.
4.Destabilize	Dissolves fibrin and has thrombolytic effects.
5.Bdellins, Eglin	Have anti-inflammatory effects.
6.FactorXa inhibitor	Inhibits the activity of coagulation factor X a.
7.Acetyl choline	Vasodilator, increases blood flow at bite site.
8.Anesthetic substances	Anesthetic effect.

DISCUSSION

PROBABLE ACTION OF JALOOKAVACHARANA IN PERIARTHRITIS OF SHOULDER JOINT

The initial features of Periarthritis of shoulder joint presents with *Amsaruk* and *Amsasandhi sophā*. Due to *aharaja nidanas* like *Atisevana of Pista anna*, *lavana anna*, *guru ahara* and *atisevana of Amsa pradasha*, *vata dushti* occurs. Here *stanasamsraya* occurs in *Amsapradesha* due to the *Srotavarodha* caused by *kaphapitta dosha* and *dushyas of rasa, rakta, mamsa*. Pain in the nighttime and swelling causes difficulty in range of movements of shoulder. In the first stage of disease, action of salivary enzymes by leeching hinders the Inflammatory cascade. It helps to relieve the pain and stiffness of shoulder joint.

As a result of excessive intake of *ahara nidana like* [11 *guru, lavana, Pista, anna sleshaka kapha dusti* occurs and *ativyayama* over the specific part leads to *vyana vayu kopa*. Since *vyana vayu* is associated with *Antharagni*, impairment in digestion occurs leading to *ama* formation. Directly *agnibala* affects *pitha dosha* and *rakta dusti* subsequently occurs. It will directly hamper *jataragni* and *rasa rakta mamsa dhatwagni*. Hence *rasa rakta* and *mamsavaha srotas* are inflicted leads to *sanga and vimarga gamana of vata dosha*. It will affect the *Upadhatus* like *kandara and sira* leading to *vyakta bhava* in *Amsa pradasha*.

Action of *Jalooka avacharana in Amsa sandhi cures the rakta dushti by avoiding sanga of affected srotas like D*. By removing *sanga* and healthy action of *srotas* promotes normal movement of *vyana vata* and cures pain. *Amsa sophā* which is of *kapha pitha predominance* is relieved by normal functioning of *sleshaka kapha*. [12] As a part of normal functioning of *srotas*

Upadhatus are benefitted, and range of movements are achieved.

CONCLUSION

In the light of above discussions and modern counterparts of action of leech therapy in hindering inflammatory cascade, it can be concluded that *Jalookavacharana* has significant role in reducing pain and subsiding swelling of affected shoulder joint in the initial stages of the disease. Thus, *Jalookavacharana* can be an effective choice in the management of Periarthritis of Shoulder joint.

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