

JALAUKAWACHARANA (LEECH THERAPY) A REVIEW**¹*Vd. Pradnya Dakhole, Vd. Kavita Khond², Vd. Sneha Tiwari and Vd. Vardha Karnik**¹HOD, Dept. of Shalya Tantra Department of Shri K.R. Pandav Ayurved College Ayurved College, Nagpur.²Principle and HOD, Dept. of Sharira Rachana Department of Shri K.R. Pandav Ayurved College Ayurved College, Nagpur.³Assistant Professor. of Kaya Chikitsa Department of Shri K.R. Pandav Ayurved College Ayurved College, Nagpur.***Corresponding Author: Vd. Pradnya Dakhole**

HOD, Dept. of Shalya Tantra Department of Shri K.R. Pandav Ayurved College Ayurved College, Nagpur.

Article Received on 01/01/2023

Article Revised on 22/01/2023

Article Accepted on 12/02/2023

INTRODUCTION

According Ayurvedic classics it is safer and less complicated natural process therefore indicated even for the king, rich, old, fearful, weak, women, and the people of tender nature. Records of the medical usage of leeches date back to the beginning of civilization. Modern hirudotherapy differs from that of ancient one because now we do not use wild leeches but grown in a special bio factories where they are in severe quarantine. Except, now a days the leeches used only once. After using a leech it is destroyed this fact excludes infection of the patients. The absolute safety and obvious advantage of hirudotherapy and checked up by thousands of years of experience of mankind and does not cause any doubt in the secretion of medicinal leeches salivary gland, except hirudin inhibitor of ferment thrombin, there is a whole range of biological active combinations. The benefits of leech therapy were earlier thought to be derived from the amount of blood lost, hence relieving congestion and removing the noxious humors Jalaukawacharana is the form by which blood is released in the treatment of Conditions of ill ness such as Psoriasis, Osteoarthritis with the aid of therapeutic leeches. Modern medical science is the most acceptable and completely developed science in th entire world. but there is still not much impact on disorders such as Psoriasis, Osteoarthritis, Rheumatic Gout, Chronic Ece zema, Vulgar Acne, Varicose Vein, Sciatica.

AIM AND OBJECTIVE

To review of Leech (Jalaukavacharana) according to Ayurveda and modern point of view Along with written articles, from Ayurveda treatises.

Method of Jalauka Application**Purva Karma (Pre-Procedure Protocols)**

It requires steps to take— I-The patient's proper snehana (oleation) and swedana (sudation). II- Leech purification by pouring the leech into a mixture of water with turmeric powder. III- Component preparation-The washing of the body part on which the leech is to be applied.

Pradhana Karma (Main Procedure Protocols)

The skin with a sharp and sterile needle before the application prick, so the drop of blood comes out, then the Leech is applied through its front end and wet cotton covers the leech. If the leech is not prepared to suck the blood from the body portion, madhu, Ghrit, or butter should be applied.

Paschata Karma (Post Procedure Protocols)

Wound treatment After leech detachment, there is a triangular wound caused by the mouth of the leech. Blood is flowing out of your cut. Bleeding from the

wound is tested with the use of Yastimadhu or turmeric powder by applying tight bandaging.

Leech Removal

After 30-70 minutes, the leech is extracted by itself or by adding turmeric powder to the leech. Mouth of the leech.

Care of patient

After detaching the leech, affected part should be cleaned with cotton. An wound incidental to an application of leech should be rubbed with honey or washed with spray of cold water or bound up with an astringent (Kashaya), sweet and cooling plaster, according to the quantity of blood removed from the part. In case of Samyak Yoga (proper bleeding), the wound should be applied with the Shatadhauta Ghritam (100 times washed ghee), or a piece of cotton, soaked in the same substance, applied as a compress over the part. The wound should be rubbed with honey in a case of Ayoga (insufficient bleeding). While it should be washed with a copious quantity of cold water if Atiyoga (extensive bleeding) occurs. Similarly in case marked by the absence of any bleeding at all (Mithya Yoga) a sour, sweet and cooling plaster should be applied over the wound.

Preservation of Leech: The leeches should then be put into a new pitcher and treated as before laid down, after they had fully omitted the sucked blood. Used leech should be restricted for reuse for at least 7 days. They should be transformed from one pot to another filled with good mud and water in order to prevent the putrefaction of saliva for the leech becomes poisonous with such contact.

Procedure of Reuse of Medicinal Use: once a leech is distended, a small amount of salt or Haridra is spread over its mouth. The leech will then gush out the blood it sucked. The leech is returned to fresh water immediately to get rid of the excess salt. After this process, the leech can be used again as if it is a fresh one.

Facts about Leech therapy: Today, systemic bloodletting is restricted to a few limited conditions including polycythemia and hemochromatosis but this therapy is a special form of small bloodletting. It is always proven its miraculous effect in the field of medicine time to time.

In the failure of adequate venous return from a graft, reduces blood supply - causing tissue necrosis placing a leech on the congested skin flat, fingers or other vascular compromised area removes the congested blood and enables the graft to be salvaged. Leeches are currently used during post-operative care of reimplanted fingers, skin graft, and breast reconstructions.

Leech has been used in thousands of cases to treat swelling after plastic surgery and graft operations until 1985 micro-surgeons often failed when sewing severed ears, fingers and other body parts back on. Leeches are now regularly used in such cases to keep the blood oozing into the sewn or tissue until the venous congestion is relieved and normal venous drainage of the graft can develop properly.

Leeches are anti-phlogistic, used for the local obstruction of the blood. They are used in acute inflammation, abscess, boils, in bruises, sprains and blows.

The leech saliva has helped in countless tricky reattachment as well as being effective against various inflammatory conditions and skin diseases such as eczema, psoriasis.

If medicinal leech bites once, the victim can bleed for hours, allowing oxygenated blood to enter the wound area until vein re-grows and regain circulation.

The leech saliva has helped in degradation of fibrinogen, inhibition of factor XIIIa and lysis of fibrin clots.

As the benefits of judicious treatment with leeches are recognized, the range of conditions that can be treated extends. There are case reports of effective leech treatment for hematomas, purpuri fulminans, paronychia and even vascular congestion in the penis.

Precaution during Leech Application

1. Bleeding and the patient's clotting time should be normal.
2. Gentle leech handling.
3. With wet cotton, cover the leech.

Indications: Ayurveda

Vidradhi (Abscess), Gulma (Abdominal Swelling), Arsha (Piles), Kushtha (Skin Disease), Vatar akta (Gout), Krostrukashirsha (Infective Arthritis), Sandhigataroga (Arthritis), Kantharoga (Goiter), Netraroga (Eye Diseases), Granthi (Nodular Swelling), Arbuda (Cancer), Shlipad (Filaria), Vidarika (Crackle), Vishadamshttra (Insect Bite), Visharp (Insect Bite), Jalaukavacharan can be used in various ayurvedic diseases.

Contraindications: Ayurveda.

Jalaukavacharan should be avoided

- 1) Sarvangashotha (Oedema generalised)
- 2) (Abdominal diseases) Udarroga
- 3) Tuberculosis (Shosa)
- 4) Ksheena (Emaciation)
- 5) Pregnancy (Garbhini)
- 6) Pandu (Anemia)

Research works on Leech Therapy

1) A randomized clinical open trial had been conducted to find out the effect of leech therapy in varicose vein, using two groups. First group was treated with leeches in alternative days for two months. Second was treated with grade 2 compression stockings and limb elevation for two months. Response was measured by assessment of pain/leg discomfort, limb girth at calf, ankle, and feet, pigmentation area & colour on every 15th day. First group showed significant reduction in pain, limb girth, and pigmentation. Second group showed significant reduction in pain & limb girth, but there was no improvement on pigmentation. Both groups do not show significant improvement on SFJ (Saphenofemoral junction) & SPJ (Saphenopopliteal Junction) incompetency.

2) A single course of leech therapy was effective in relieving pain in the short-term in patients suffering from chronic lateral epicondylitis (Tennis elbow) and reduced disability in intermediate-term. Further the researchers have mentioned that leeches might be considered as an additional option in the therapeutic approach to lateral epicondylitis.

3) Tenosynovitis of the quadriceps femoris is a local inflammatory condition. Researchers selected leech therapy in management of this condition, as Sushruta describes bloodletting therapy is beneficial in early stages of oedema. Local leech application was done at the left thigh for 7days, daily at the same time. Mobility of hip and knee joints improved and local tenderness relieved after treatment.

DISCUSSION

Jalukavacharana is one of the oldest methods used to extract deeply rooted contaminants and pacify vitiated dosha to cleanse the body. Diseases are induced due to dosha vitiation, according to Ayurveda. Doshaget vitiated accumulated in srotas (channels) causing srotoavarodha (channel block) and leading to many illnesses. Saliva leech contains a variety of bioactive components that have anti-inflammatory, anticoagulant, anaesthetic, vasodilator, anaesthetic, antibiotic and antioxidant properties that function under various conditions of illness via multiple mechanisms. Jalukavacharana increases blood flow through its anticoagulant properties, which improves local circulation and also suffices for the nutrient. Jalukawa's anticoagulant property was discovered by modern scientists in 1980, but our acharya had the knowledge since the vedic times. From a scientific perspective and not just a mere intuition, as an effective treatment modality.

CONCLUSION

Leech or Jalukavacharan therapy is an ancient technique of ayurvedic blood letting that has the enormous ability to treat conditions of inflammatory, ischemic and infectious diseases. Saliva leech contains a variety of bioactive components that have anti-inflammatory, anticoagulant, anaesthetic, vasodilator, anaesthetic, antibiotic and antioxidant properties that function in various conditions of illness via multiple mechanisms. Sadly, most bioactive ingredients are still unexplored and knowledge of the mechanisms of action of bioactive compounds found in Leech Saliva is limited. Extensive studies are therefore needed to find out the precise mechanisms. The operation of a different bioactive factor in order to restore conventional therapeutic ability on a scientific basis.

REFERENCES

1. Kaviraj Ambikadutta Shastri, Sushruta Samhita Ayurved Tattva Sandipika Hindi Commentary, Edition: Reprint Sutra Sthana, Chapter 13 Verse 3, Varanasi; Chaukhamba Sanskrit Samsthana, 2016; 57.
2. Medical use of Medicinal leeches. University of Connecticut Dept of molecular and cell biology. [Cited 2017 Jun 21] Available from web. uconn.edu /mcbstaff/graf/Medical. Html.
3. Kaviraj Ambikadutta Shastri, Sushruta Samhita Ayurved Tattva Sandipika Hindi Commentary, Edition: Reprint Sutra Sthana, Chapter 13 Verse 3, Varanasi; Chaukhamba Sanskrit Samsthana, 2016; 61.
4. Kaviraj Ambikadutta Shastri, Sushruta Samhita Ayurved Tattva Sandipika Hindi Commentary, Edition: Reprint, Sutra Sthana, Chapter 8 Verse 15,
5. K. R. Srikanth Murthy, Vagbhatt's Ashtang Hridayam, Edition: Reprint Sutra Sthana, Chapter 26 Verse 27 Varanasi; Chaukhamba Krishnadas Academy, 2007; 302.
6. Kashinath Shastri, Charaka Samhita Vidyotani Hindi Commentary, Edition: Reprint, Sutra Sthana Chapter 11, Verse 55, Varanasi; Chaukhamba Bharati Academy, 2016; 239.
7. K. R. Srikanth Murthy, Vagbhatt's Ashtang Hridayam, Edition: Reprint, Sutra Sthana, Chapter 26 verse 42, Varanasi; Chaukhamba Krishnadas Academy, 2007; 305.
8. Vasant C. Patil, Principles and Practice of Pancakarma, Edition: reprint 2016, chapter 15, New Delhi; Chaukhamba publication, 2016; 577.
9. Vasant C. Patil, Principles and Practice of Pancakarma, Edition: Reprint, Chapter 15, New Delhi; Chaukhamba publication, 2016; 577.
10. Kaviraj Ambikadutta Shastri, Sushruta Samhita Ayurved Tattva Sandipika Hindi Commentary, Edition: Reprint, Sutra Sthana, Chapter 13 Verse 11, Varanasi; Chaukhamba Sanskrit Samsthana, 2016; 58.
11. K. R. Srikanth Murthy, Vagbhatt's Ashtang Hridayam, Edition: Reprint, Sutra Sthana, Chapter 26 Verse 3637 Reprinted, Varanasi; Chaukhamba Krishnadas Academy, 2007; 304.
12. Kaviraj Ambikadutta Shastri, Sushruta Samhita, Ayurved Tattva Sandipika Hindi Commentary, Edition: Reprint, Sutra Sthana, Chapter 13 Verse 11, Varanasi; Chaukhamba Sanskrit Samsthana, 2016; 58.