ABSTRACT

Raktamokshana is included in shodhana chikitsa by Acharya Sushrutha & Acharya Vagbhata, looking into the importance of Rakta in the manifestation of disease. Bloodletting now the days is practice in different pathy’s. Bloodletting is the removal or large amounts of blood from a patient’s body. Now the days Jalouka is widely used in fields of cosmetics and and post surgical procedures which further gives new ideas to practitioners. In the present article a critical analysis on Jaloukavachara is done and on its applications.

KEYWORDS: Application of Jalouka, Mode of action, Types.

INTRODUCTION

The blood vitiated by Vata, Pitta and Kapha should be let out by horn, Leech or gourd respectively; (although) in all types of vitiated blood any one of the three methods may be used.\(^1\) Raktamokshana is used in tridosha dusthti rogi, where due to properties of jaluka(Sheet virya, Madhura rasa) it is widely used in pitta pradhana vyadhi’s. Blood is the carrier of disease, letting of blood out would be replaced by new blood.

The practice of bloodletting began in the ancient world. Ancient Greeks, Aztecs, and Egyptians used bloodletting because they believed that many diseases were caused by having...
too much blood. The practice of **bloodletting** for treating almost any disease was common, with the progression of time, jaluka is widely used in rakta dushti.

**Definition of Jalouka**

“An aquatic feminine creature employed to expel out the vitiated blood (Shabda Kalpadruma).

“An animal living either in water or in mud with distended abdomen.”

“A creature whose life is water.”

“A creature having its habitat and life as water.” [2]

**Etymology**

- The word Jalauka is a compound word with two components Jala (Water) + Oka (Housing place) i.e. animals having water as its housing place.
- The word Jalayu is a compound word with two components Jala (Water)+ Ayu (Life) i.e. animals having water as the life.

**Classification**

- The Jalaukas are mainly classified in two type’s i.e, Savisha and Nirvisha. These two groups again contain six types of Jaloukas in each.[3,4]
- On the basis of sex they are again classified into male and female.[5]

**Table no 1. Showing the types of Savisha & Nirvisha jaloukas**

<table>
<thead>
<tr>
<th>Sl no</th>
<th>Savisha jalouka</th>
<th>Nirvisha jalouka</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Krishna</td>
<td>Kapila</td>
</tr>
<tr>
<td>2</td>
<td>Karbura</td>
<td>Pingla</td>
</tr>
<tr>
<td>3</td>
<td>Algarda</td>
<td>Sankhmukhi</td>
</tr>
<tr>
<td>4</td>
<td>Indrayudha</td>
<td>Mushika</td>
</tr>
<tr>
<td>5</td>
<td>Samrudrika</td>
<td>Pundarikamukhi</td>
</tr>
<tr>
<td>6</td>
<td>Gochandana</td>
<td>Saravika</td>
</tr>
</tbody>
</table>

**Characteristic feature of individual jalauka:**

(A) **Savisha jalaukas.**[6]

1) **Krishna:** It resembles black in colour like that of anjana. It has prutu (big) head.

2) **Karbura:** It resembles vartha matsya(snake like fish). Its kukshi has elevations and depressions.

3) **Alagarda:** It has maha parshva, its body is romasha and has Krishna mukha.

4) **Indrayudha:** It looks like that of rainbow. There are many striations or lines on its body.
5) **Samudrika**: Its colour resembles slightly Asithapitika. It has dotted skin and resembles many flowers.

6) **Gochandana**: Its end part resembles like that of Govrushana. Its body has marked **bifurcating** lines and has anumukhi.

**(B) Nirvisha jalauka**

1) **Kapila**: It has Manahshila coloured striations at its body sides. Its dorsal surfaces are snigdha and color resembles like Mudga pulse.

2) **Pingala**: Its body shape is vrutta, its colour matches to rakta and it has ashugati.

3) **Sankumukhi**: Resembles yakrudvarna, it is sheegra payini, has dheerga kaya and has shankha mukha.

4) **Mushika**: Its colour & shape resembles like that of mushika and emits a foetid smell from the body.

5) **Pundarikamukhi**: Its mukha resembles like that of pundarika and its color matches with the color of Mudga pulse (greenish black).

6) **Savarika**: It has padmapatra varna and measures astadashangula in length.

**Indicated persons**

This very gentle method of bloodletting treatment with the application of leeches is preferable for the very young very old, the timid, the weak, ladies, the rich and delicate persons.

**Chemical constituents of saliva**

- The leech produces a number of important substances which contribute to the special property of the bite, including an anticoagulant, a local vasodilator and local anesthetic

**Hyaluronidase**

- An enzyme, It is a spreading or diffusing substance that modifies the permeability of connective tissue through the hydrolysis of hyaluronic acid, the bonding material of connective tissue.

- Hyaluronidase not only improves blood circulation in target organs, also promotes capillary-tissues exchange. It helps in the reduction of swelling, and dissolution of the organized blood-clots.

- The using of leeches, promotes the increasing of local immunity along with fastening the flow of blood and fluids from affected areas
Leech therapy for (complicated) varicose veins

- The effectiveness of medicinal leech therapy in producing venous decongestion, reversal of oedema, hyper pigmentation and healing of varicose ulcer(s)

Collection of jalauka.[8]

- **Time:** The best time for collecting jalaukas is Sharad ritu (autumn).
- The jalauka can be caught with a piece of wet leather, in tanks, streams and where there are lotuses, it can be collected by applying fresh meat of dead animals, on the thigh of human being himself and keep the leg in water for some time. When Jalaukas gets attracted and stick to thigh, remove them by sprinkling Saindhava over its mouth and collect. Poisonous leeches must be thrown out.

Preservation of jalauka

- After collecting the jalaukas, they should be kept in a wide and new earthen pot. The pure water of tank with lotus should be filled into the pot. On every third day the water should be changed and feeding should be dropped inside the pot. After five or seven days the pot should be changed.[9]

Jaloukavacharana vidhi

Poorvakarma

(A) Preparation of patient

- The yogya patients and their vital datas are checked & confirmed for fitness. The parts to which Jaloukavacharana is to be carried out by rubbing with mud or cow dung or with gauze to dry the affected area this helps jalaukas to get stick easily.[10]

(B) Preparation of Jalauka for Jaloukavacharana

- Jalauka of good quality is taken and kept in rajani (Haridra) & sarshapakalkodaka. By this procedure jalaukas become activated and get rid of exhaustion. (Su.Su.13/16)
(C) Collection of required material

- Shastra, kshara, agni, shalaka, pichu, prota, patra, patta, saindhava, madhu, ghrita, vasa, taila, kashaya and alepana kalka, are to be collected. (Su. su 13/6), (Su,Su, 5/4)

Pradhana karma

The patient is made to sit or lie in the supine position. The area of the body that is dried is allowed to bite by jalauka. The jalauka bites on the skin and suck the blood by itself. If the jalauka does not suck or bite the skin, a drop of milk or blood is shed on the surface or a mild prick is made. In spite of this, if the jalauka does not suck, another jalauka is taken for application. As soon as jalauka starts sucking the blood, wet white gauze should be covered on it, leaving its facial region. Its face appears like the hoof of a horse and it raises its neck by this we understand that it has started sucking.

If the patient gets itching and pain at sight of jalaukaavacharana we can assess that it has started sucking pure blood. Then it should be removed. If the jalauka does not stop sucking due to odour of blood, it is removed by sprinkling powdered rock salt or haridra powder at its mouth region.

If still there is the dusta rakta it must be made to flown out by the application of paste of turmeric, jaggery, and honey at the bite spot. This is done because dusta rakta is mobilised from its ashaya and comes near the damsha stana and stagnates there. It leads to pus formation.(A.H.Sut.26/48) (Su.su13/19)
Paschatkarma (A.H.Su.26/44)

- **Management of Patient**: After the detachment of jalauka, the wound caused by jalauka is smeared with shatadouta ghrita and tightly banded.
- **Management of Jalauka**: Jalaukas are to be managed as said before.

Management of Complications

- Hinayoga – To achieve Samyak yoga the wound is rubbed (avagattana) with madhu.
- Atiyoga – Sheetala jala parishechana and Rakta stambhaka drugs are sprinkled.
Savisha jalauka dansta laxana
- Shotha, kandu, moorcha, jwara, daha, vanama, paka, visarpa, switra etc. (Su. Su. 13/11), (A. S. Su. 35/3)
- Management : Pitta-rakta-hara kriya should be done. (Su. Su. 35/3)

Importance of Jaloukavacharana
- Jaloukavacharana is such a method of rakthamokshana that it can be applied even to parama sukumaras. (Su.su.13/3)
- “The Surgeon who knows all about the jalauka habitat, their method of collection, varieties, storage and method of application is successful in treating the disease amenable to them.” (Su. Su. 13/24)

Pathya -Apathya
- The pathya- apathyas are same as that of any type of rakta mokshana. Exercise, sexual intercourse, cold bath, day sleep, exposure to breeze, food having kshara, amla, katu rasa, and shoka should be avoided till body gets original strength.

Probable mode of action of Jaloukavacharana
- Jaloukavacharana is mainly indicated in the avagadha areas. As jalaukas are madhura and jalavasi they are considered as best for pittaja vikaras and raktaja vikaras.
- The effect of jaloukavacharana is mainly because of its method of sucking and the salivary secretion hirudin.
- The jalauka sucks the impure blood directly from the capillaries this helps in the effective removal of edema of the affected site. And the hirudin (antioagulent) inhibits coagulation & promotes fibrinolysis. Again the wound occurred due to the bite of jalauka stimulates mast cell accumulation and further the healing process accelerates. (Su .Su 13/6)

DISCUSSION
- Jalouka is applied not only as mentioned in classics but also in the post operative management of surgery done over peripheries. Ex: Ear lobe, Tip of the nose etc.
- Jalouka sucks the blood around 10 angulas in diameter from the site of the application.
- In case of Raktasrava, Raktaskandhopaya can be employed.

CONCLUSION
- Jalouka is operatively and post operatively used.
• Jalouka does the major surgical procedure without instrumental invention.
• The life of Jalouka is very impartment, it should not made to die.
• The infectious diseases like HBsag, HIV have limited the random use of Jalouka

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