

## BANDHA VIDHI - THE CONCEPT OF BANDAGING IN AYURVEDA

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### ABSTRACT

One of the common problems and challenges to the modern world is trauma and its management. The observance of immobilisation is the key to treat fracture or a wound. A bandage plays a more important part as regards its healing and curative efficacy, inasmuch as it materially contributes to the purification and healing of an ulcer and also keeps the joints steady. *Bandhana* is the technique of bandaging mentioned in *Susrutha Samhita* written around 1st BC. *Acharya Susrutha* mentioned about this in *Susrutha Samhita* in *vrana alepana bandhana vidhi*. The chapter includes basic principles to be followed during a bandaging, location where it is applicable, Dos and don'ts, when to change a bandage, pressure of bandages on various situations, materials for preparation of bandage etc.

**KEYWORDS:** *Bandhana*, Bandaging, *Vrana*.

### INTRODUCTION

*Ayurveda* is the complete science of life where we get elaborate descriptions about prevention of disease. Trauma and its management is one of the common problem and challenge to the modern world. The observance of immobilisation is the key to treat fracture or wound. In the eighteenth chapter of *Susrutha Samhita sootra stana vrana alepana bandhana vidhi Acharya Susrutha* mentioned about bandaging. A bandage plays a more important part as regards its healing and curative efficacy, inasmuch as it materially contributes to the purification and healing of an ulcer and keeps the joints steady. The chapter contains basic concepts to be followed during bandaging, bandaging according to shape, based on the area where it is used in the body, dos and don'ts, bandage pressure on different conditions, bandage preparation materials etc. *Acharya* mentioned about 14 types of bandaging according to positions, three according to pressure. Indications and contra indications of bandaging in various situations. The preparation of *kavalika* and *vikeshika* and its importance.

#### Importance of Bandaging<sup>[1]</sup>

*Acharya Susrutha* mentions application of bandages in multiple fractures, fractures due to crushing, complete breaking of bones, dislocation leading to laxity, breakage of ligaments and tendons will heal immediately if proper *bandhana* (bandaging) is performed. The bandage helps the subject to stay in comfort during resting, movements, lying down and sitting. It also improves healing of ulcers.

#### Materials Used For Preparation of Bandages<sup>[2]</sup>

The following materials are used for making bandages during olden days.

- *Kshauma* (cloth woven with the fibres of *Atasi* plant)
- *Avika* (bandage made of sheeps' wool)
- *Dukulum* (loom-silk)
- *Kausheya* (silk)
- *Patrorna* (a kind of cloth made of the fibres of *Naga* trees, which grow in the provinces of *Paundra* and *Magadha*)
- *Chinapatta* (China cloth)
- *Antarvalkala* (the inner bark or fibres of a tree)
- *Charma* (skin)
- *Alabu Shakala* (the skin of a gourd)
- *Lata-Vidala* (half thrashed *Shyama* creepers)
- String or cord
- Cream of milk
- *Tula-phala* (silk-cotton)
- Iron

These materials should be used according to the type of ulcer and the season of the year in which it occurs.

#### Fourteen Types of *Bandhas* (Bandages) And Their Locations<sup>[3]</sup>

The fourteen different types of bandage are known as *Kosha*, *Dama*, *Svastika*, *Anuvellita*, *Pratoli*, *Mandala*, *Sthagika*, *Yamaka*, *Khatva*, *Cheena*, *Vibandha*, *Vitana*, *Gophana*, *Khatva*, *Pancangi*. These types can be derived conveniently from the meanings of their names. A bandage of any particular shape should be tied

round the part of the body to which it would be found to be most suited.

- **Kosha** - the sheath-shaped bandage should be tied round the thumb and the phalanges of the fingers
- **Dama** - A garland shaped bandage, round the narrow or unbent parts of the body
- **Svastika** - Cross shaped bandage that can be applied around the joints, around the articulations or the *Marmas* known as the *Kurchakas* (Navicular ligaments) around the eye-brows, around the ears and around the region of the breast.
- **Anuvellita** -This type should be used when the seat of the affection would be found to be situated at the extremities (hands and legs).
- **Protoli** – This class of bandages should be tied round the neck or the penis
- **Mandala** – This type of bandages are circular in shape and are applied around the circular parts of the body
- **Sthagika** – Bandages are betel-box shaped and are applied around the glans-penis and the tips of the fingers
- **Yamaka** - Are applied in case of the confluent or contiguous ulcers
- **Cheena** -Ribbon like bandages applied around Outer angles of eyes ;temples
- **Khatva** -Bedstead-shaped, over and around the cheeks, cheek-bones, and the parts between the ears and the eye-brows
- **Vibandha** - A loop with a running knot like bandage over torso , abdomen and chest
- **Vitana** – Bandage applied over the skull
- **Gophana** –Horn shaped, round the region of the chin
- **Pancangi** – Five tailed bandage around the part lying above the clavicles.

#### Yantrana (Fastening of Bandage)<sup>[4]</sup>

Yantrana is the procedure of fastening bandages around an ulcer or fracture. The pressure of bandages such as *gada* (tight), *sama* (moderate) and *sithila* (loose) cannot be acquired without the skill of *yantrana*.

Three types of *yantrana* mentioned by *Acharya Susrutha* are

- *Urdhwam* - Upward fastening
- *Adha* - Downward fastening
- *Tiryak* - Transverse fastening

#### Repetition of Bandaging Based on Seasons and *Dosha*<sup>[9]</sup>

NO	SEASON	<i>Dosha</i> (aggravating)	REPETITION OF BANDAGING
1	<i>Sarath, Greeshma</i> (Hot seasons)	<i>Pitta</i> <i>Raktha</i>	Twice in a day mostly advised in morning and evening
2	<i>Hemantha Vasantha</i> (cold season)	<i>Kapha</i> <i>vata</i>	Once in 3 days

#### *Kavalika and Vikeshika*<sup>[5,6]</sup>

**Kavalika:** — any soft stuffing or a bundle of untwisted natural or man-made fibre (such as the leaves or the bark of trees of medicinal virtues) between the ulcer and the bandaging linen embedded between a cloth is called the *Kavalika* (medicated tow). The tow or the *Kavalika* should be placed thickly (on the seat of affection); and then the physician (surgeon) having pressed it with his left hand should—place a piece of straight, soft, untwisted, and unfolded or unshrivelled linen over it, and then firmly tie up the bandage in a manner so as not to leave any knot over the seat of the ulcer, or to cause any discomfort to the patient.

**Vikeshika:** - Lint saturated with honey, clarified butter, and a medicinal paste should be inserted into the ulcer. Care should be taken not to introduce the lint extremely dry, or oily (oversoaked in a lubricating or oily medicinal preparation), inasmuch as an over-lubricated lint would give rise to an excessive formation of slimy mucus in the ulcer, whereas, its parched substitute would bring about the friction and the consequent breaking of the edges of the ulcer, like one misplaced or wrongly inserted.

#### Three Types Of *Bandha* Considering The Charectors Of *Vrana* (*Vranayathana Vishesha*)<sup>[7]</sup>

- **Gada bandha** is performed with pressure but not inducing pain. It is indicated in *Sphik* (buttock), **Gada bandha Kukshi** (Abdomen), *Kaksha* (Axilla), *Vankshana* (inguinal region), *Uru* (Thighs), *Shiras* (head).
- **Shithila bandha** is performed in such a way that it should allow air circulation. It is indicated in eyes and joints.
- **Sama bandha** is performed with pressure obtained between *shithila* and *gada bandha*. It is indicated in extremities, face, ears, throat, penis, testicles, torso, flanks, abdomen and chest.

#### Three Types Of *Bandha* Considering The *Doshas* Involved In *Vrana*<sup>[8]</sup>

In *pitta dosha* aggravated conditions and also in *raktha dushti*, in place of *gada bandha sama bandha* should be performed. In place of *sama bandha shithila bandha* should be performed. Bandaging is avoided in case were *shithila bandha* is advised.

In *Shleshma* aggravated conditions and also in *Vata dushta* conditions it is advised to perform *sama bandha* in place of *shithila bandha*, *gada bandha* in place of *sama bandha* and *gada thara bandha* (high pressure bandages) in place of *gada bandha*.

Own discretion and modification or follow the preceding bandaging guidelines in accordance with each case's requirements will improve the outcome.

#### Complications arising due to incorrect bandage pressure<sup>[10]</sup>

- If *gada bandha* is performed in place of *sama* and *shithila* bandha the *vikeshika oushadha* will fail to act properly and can result in pain and swelling.
- If *shithila bandha* is done in *gada* and *sama bandha sthana* there is a chance for falling down of *oushadha* (medicine) and the movement of bandage cloth will disturb the margins of *vrana*.
- If *sama bandha* is done in place of *gada* or *shithila bandha* then it will not be imparting any benefits

#### Complications That Occurs If Bandhana Is Not Performed<sup>[11]</sup>

An ulcer, left without *Bandha* i.e., an adequate bandage, is easily attacked by microbes and flies. The *Vrana* will get further injured by *Truna*, *Kashta*, *Upala* etc., and is in danger of becoming disturbed by deposits of many foreign items such as bone fragments, dust, plants, etc. In addition, a prolonged exposure to heat or cold induces a number of pains, the ulcer grows into a *Dushta vrana*, and the medicines applied will become dry, encrusted, and fall off easily.

#### Benefits of Bandaging<sup>[12]</sup>

Considering *Dosha*, *Kala* (Season), and *sthana* (Location) if bandage is performed in right manner it will provide relief from pain, impart *raktha prasadam* (improving quality of blood) and impart smoothness.

#### Contra Indications of Bandaging<sup>[13]</sup>

Ulcers should not be bandaged at all due to the deranged state of *Rakta* or *Pitta*, or to the effects of a blow or other impregnated poison and distinguished by sucking, burning pain, redness or suppuration, as well as those incidental to burns, or applications of actual or possible cauteries marked by sloughing.

#### DISCUSSION

- A knowledgeable physician who is familiar with the particular characteristics of the ulcers should observe the form of the individual being handled and anticipate the outcome of the seat or position of the individual and the existence of the deranged *doshas* involved. The season of the year in which a first-time ulcer is seen also dictates the essence of the prognosis. Bandages may be tied up either from above, below, or from the sides of a diseased locality.
- The *kavalika* or tow should be thickly laid over the seat of the ulcer, after which a piece of soft and unshrivelled linen should be put on it, and the bandage should be loosely or tightly wrapped in accordance with the instructions

- *Vikeshika* should not be over-lubricated and must not be inordinately oily in as-much as such a lint or medicine would give rise to the formation of excessive and abnormal slimy mucous in the ulcer.
- Extremely dry *vikeshika* would set up friction and laceration of the edges of the ulcer, like the one wrongly or improperly inserted into its cavity, causing numbness, excessive exudation and unevenness of its surface.
- *vikeshika* properly saturated with a medicinal plaster and rightly inserted into the cavity of an ulcer, leads to its speedy healing.
- All secreting measures in connection with an ulcer should be continued or stopped according to its condition, whereby the nature and shape of the bandage should be determined as well.
- An ulcer, due either to the deranged condition of blood or the *Pitta*, should be dressed and bandaged once a day which may be extended to a number of times in the case of an ulcer brought about by the deranged *Kapha* and *Vayu*.
- An ulcer, properly bandaged, has a greater chance of not being affected by lying down, sitting up, or any other movement of the patient, nor by the jolting of a conveyance he may ride or be carried in.
- A vein or ligament or skin ulcer (superficial) or flesh or bones cannot be healed without bandaging. An ulcer situated in any of the body's inner chambers (cavities), or arising at any junction of the limbs or organs, etc., or having its seat in a bone, and whether of a deep, superficial, malignant or corrosive nature, cannot be brought to a successful end without the help of a bandage.

#### CONCLUSION

*Acharya susrutha* mentions that application of bandage in multiple fractures, fractures due to crushing, complete breaking of bones, dislocation leading to laxity, breakage of ligaments and tendons will heal immediately if proper *bandhana* (bandaging) is performed. The bandage helps the subject to stay in comfort during resting, movements, lying down and sitting. It also improves healing of ulcers. *Yantrana* is the procedure of fastening bandages around an ulcer or fracture. The pressure of bandages such as *gada* (tight), *sama* (moderate) and *sithila* (loose) cannot be acquired without the skill of *yantrana*. Considering *dosha*, *Kala* (Season), and *sthana* (Location) if bandage is performed will provide relief in pain, *Raktha prasadam*, Smoothness.

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