



**BANDHANA VIDHI- A CONCEPTUAL STUDY**

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**ABSTRACT**

Bandages are very commonly used both in surgery and medical conditions. Use of bandhas has been mentioned by all brhatrayees. As Sushruta is the father of surgery he gave prime importance to all the concepts on surgery. Bandhas are one of the important karma mentioned by Sushruta, as he has dealt it in a separate chapter Vranalepana bandhana adhyaya. He mentioned different types of bandhas based on sthana, akruthi, dosha and rutu. Bandaging technique has mentioned based on diseases and the conditions where to do bandage and contra indications of bandages. Acharya Charaka mentioned vrana bandhana in Dwivraniya adhyaya chikitsa, while explaining vrana chikitsa. He mentioned only two types of bandas. Acharya Vagbhata explained vrana bandhanas in Shastrakarmavidhi adhyaya. Explanation is as per Susrutha with slight differentiation.

**KEYWORDS:** BANDHA, BANDAGING TECHNIQUE, BANDAGES.

**INTRODUCTION**

“Bandha samyamane nigadaadina gatirodhane”  
(Vachaspati)

Bandaging is the process to hold or to bind the structures to achieve immobilization. A bandage is a piece of material used either to support a medical device such as a dressing or splint or on its own to provide support to the body. It can also be used to restrict a part of the body. Bandages are available in a wide range of types, from generic cloth strips to specialized shaped bandages designed for a specific limb or part of the body.

**MATERIALS USED<sup>[2]</sup>**

According to classics materials used for bandaging are-  
Linen which is made up of linseed fiber, cotton, wool which is obtained from sheep goat etc, fine cloth, silk made up of silk worms, patrorna made up of green threads, Chinese cloth, antarvalkala which is taken from mid portion between outer and inner bark, skin of deer, bottle gourd used in wounds of head, creepers, rope made by munja balvaja etc, metals like gold silver which is used for binding in dental cases, tumors cysts etc.

**TYPES OF BANDAGES**

According to Caraka, vrana bandha are of two type's dakshinavarta and vamavartha bandha<sup>[3]</sup>.

According to Sushruta, bandhas are of 14 types.<sup>[4]</sup>

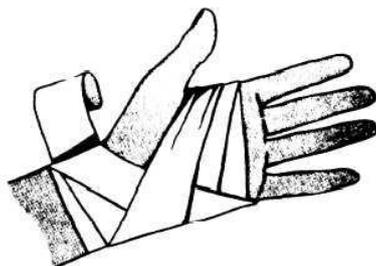
**Kosha-** Bandage should be applied to phalanges of thumb and fingers.



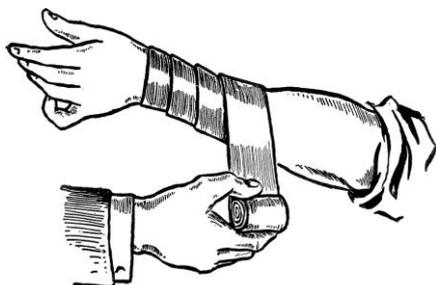
**Daama-** Applied over clavicular region and inguinal region



**Swasthika-** Is a type of bandage which is swasthika in shape, in such a way that the turn resembles the figure of '8 bandage.it is applied in joints, intermediary region of eye brows and breasts, palms, soles and ear.



**Anuvellita-** Is a bandage encircling a limb, with successive turns overlapping the preceding turns so it is called as spiral bandage. It is applied over limbs.



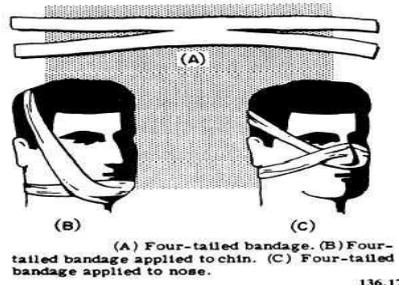
**Pratholi-** It is a cup shape, sieve like loosely woven bandage. This bandage is applied on neck and penis.



**Stagika-** Bandage done on the tip of thumb, fingers and penis called as stump bandage.



**Katva-** Bandage having many limbs, so called four limbed bandage. It is applied in the region of temple bones, jaw and cheek.



**Cheena-** Bandage is done in eye corners to support eye dressings.



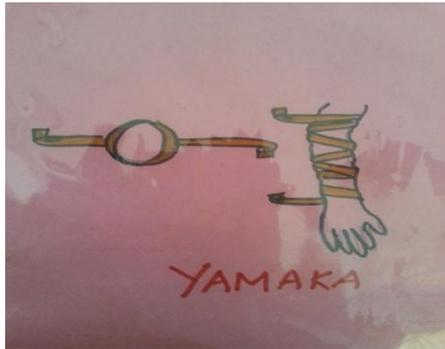
**Mandala-** It is a type of Circular bandages used in round parts like udara, uras. When using the circular turn the bandage is wrapped around the part with complete overlapping of the previous bandage turn.



**Vibandha-** This multi-tailed bandage is applied to abdomen and chest region. It is a type of bandage having different shapes with 4 to 6 tail ends to hold. This multi-tailed bandage is applied to abdomen and chest region.



**Yamaka-** It is the bandage done in adjacent wounds which is similar to circular bandage.



**Gophana-** It is a 'T' shape bandage which is applied to chin, nose, lips and pelvis.



**Vitana-** The bandages which are applied in wounds of head also called as capeline bandage.

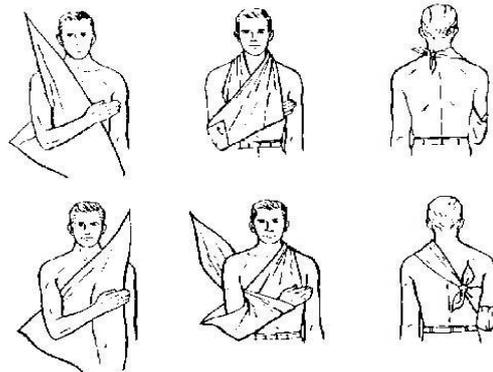


**Panchaangi-** It is a Five-limbed bandage used in dislocation of bones like joints like temporo-mandibular joint.



Vagbhata included one extra type of bandha i.e.<sup>[5]</sup>,

**Utsangi bandha-** Utsangi is used for hanging part (horizontal) in fractures to support.



Slings are meant to give support to the affected part. this bandage for the hand and wrist, probably collar and cuff sling is the best. In this case, there is a cuff attached to the wrist. This cuff is fixed to the collar through sling.

Sushruta has explained another type of classification Based on sthana anusara<sup>[6]</sup>. They are;

**Gaada bandha-** The tight bandage should be applied on buttock, lower side of the abdomen, axilla, groin, thigh and head.

**Shithila bandha-** The loose bandage should be applied on eyes and joints.

**Sama bandha-** The medium bandage should be applied on extremities, face, ear, throat, penis, scrotum, back, sides, abdomen.

#### RUTU ANUSARA BANDHA PRAYOGA<sup>[7]</sup>

Wounds predominant with pitta dosha should be bandaged twice a day in autumn and summer and so the wound vitiated by blood also.

Wounds predominant with kapha and vata should be bandaged after 3 days in early winter and spring. Thus modifications may be made by reasoning according to circumstances.

□

#### USES OF BANDAGES<sup>[8]</sup>

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As bandage keeps the wound clean and soft and also promotes healing without any hindrance, its application is prescribed to reduce wound contamination.

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Used to retain dressing and splints in position and keeps medicines in the place.

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Used to create pressure over wound, to stop bleeding and to reduce swelling (compression or crepe bandage is used for this purpose).

#### YANTRANNA VIDHI (TYING KNOT)<sup>[9]</sup>

Bandage is of three types- loose, medium and tight which cannot be without tying, so it is stated as yantrannam.

- ❑ Yantrannam- tying the knot of the bandage.
- ❑ The three types of tying depending on various shapes of wounds. They are- above, below or in the side.

#### ABANDHYA VRANAS (CONTRAINDICATIONS OF BANDAGES)<sup>[10]</sup>

Bandages are contraindicated in wounds caused by pitta, rakta, injury and poison when complicated with swelling, burning sensation, suppurative conditions, redness, piercing and other types of pain, burnt with caustic alkali or cautery and those with necrosed and sloughed flesh. Vranas caused due to rat poisoning and severe suppurative conditions of anal region should not be bandaged.

#### PRINCIPLE OF BANDAGING<sup>[11]</sup>

1. A correct width of bandage is chosen, according to the part to be bandaged; an approximate width of bandages used for various parts is given below-

<u>Part to be bandaged</u>	<u>Width of bandage used</u>
▪ Toe / finger	¾ - 1''
▪ Arm	2 - 2 ½ ''
▪ Leg	2 ½ - 3''
▪ Trunk	4 - 6''
▪ Head	2 - 4''

3. While dressing, the bandage is unrolled outwards and at a time no more than 5 – 7.5cm is unrolled.

4. The turns of bandages should be given from within outwards and from below upwards.

5. Each succeeding turn is given in a way, that it overlaps 2/3rds of the preceding turn.

6. Bandages should be applied firmly with each turn exerting the same amount of pressure.

7. Uneven and unnecessary overlapping should be avoided and the bony prominence should be padded to ensure that equal pressure is exerted over all surfaces.

8. The tips of the fingers and toes should be exposed to watch for the circulation and movement.

#### FIVE BASIC TURNS OF BANDAGES<sup>[12]</sup>

**1. CIRCULAR TURN:** The bandage is turned horizontally around the part over and over again. This type of bandaging is only used in head.

**2. SPIRAL TURN:** The bandage is turned spirally upwards or downwards according to the circumstances. This type is mostly applied in case of limbs (fingers and arms).

**3. REVERSE TURN:** It is a spiral bandage with reverse turn. It is useful when thickness is not uniform. (Ex-forearm).

**4. RECURRENT TURN:** The bandage is laid over the end of the stump repeatedly by forward and backward turns. This is mostly used to cover the amputation stump or tip of finger. This turns are fixed by circular turns.

**5. FIGURE OF EIGHT:** Bandage is turned round the limb spirally upwards and downwards in the manner of figure of eight continued above and below by circular turns. This type of turn is used for joint to keep it in extension.

#### CONCLUSION

Susrutha is the first surgeon to describe about bandhas in detail. Bandaging are done to stop bleeding and to hold dressing in place. Even though bandhas are explained in our classics, they are been used in present days as therapeutic and preventive measures in the form of immobilization. In the present day many bandages of different materials are used, which is once again a modified form of bandhas mentioned in our classics. In olden times, peoples were protecting the wounds from flies, contamination etc by covering with clothes or putting leaves on it.

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