



# STUDY OF NARIKELA PUSHPA KALKA WITH YAVA KSHARA IN THE MANAGEMENT OF MUTRASHMARI (UROLITHIASIS)

**Dr. Baljeet Singh Nehra**

Lecturer, Department of Shalya Tantra, MLR Ayurvedic College Charkhi Dadri

**Corresponding Author** - Dr. Baljeet Singh Nehra, Lecturer, Department of Shalya Tantra, MLR Ayurvedic  
College Charkhi Dadri

**Email. Id** - [nehra.drbaljeet@gmail.com](mailto:nehra.drbaljeet@gmail.com)

**Mob.** 7357202000

## ABSTRACT

The modern period is characterized by a wide range of ailments brought on by people's lifestyles and work habits. Urolithiasis is particularly upsetting the individual among them. In the world of surgery, urolithiasis is a highly prevalent disorder. It happens among persons who are accustomed to drinking less water and using particular drugs. Urolithiasis can cause severe abdominal discomfort, vomiting, nausea, dysuria, and in rare cases, urine retention. According to Ayurvedic scriptures, urolithiasis and mutrashmari might have a mutual relationship. Understanding the illness manifestation requires a great deal of care. Ayurvedic classics such the Sushruta Samhita, Caraka Samhita, Ashtanga Hrudaya, Kaiyadeva Nighantu, Bhavaprakasa Nighantu, Rajanighantu, and Dhanwanthari Nighantu, among others, have references to narikella. Kshar Kalpana is primarily manufactured to acquire carbon-dominant organic material and alkali-dominant material from plants using open and close burning of plant material. It is a white colored residue that is formed after the evaporation of filtrate of plant ash dissolved in water. Kshar is a crucial therapeutic approach since it outperforms all surgical and para-surgical procedures.

**KEYWORDS** – Narikela Puspa, Urolithiasis, Yava Kshara etc.

## INTRODUCTION

In Ayurveda, our Acharyas Charaka and Sushruta have discussed several ailments, their treatments, and various Vedic Kala formulations. There is a mention to Mutravardha because of Ashmari in the Atharvaveda. The ailments like Prameha, Mutrakrichha, and Mutraghata have been discussed by our Acharyas. It is connected to urolithiasis in modern medical research. the process through which kidney, bladder, and urethral stones

originate. Blood in the urine and discomfort in the belly, flank, or groin are symptoms frequently associated with urinary stones. One in twenty persons will get urinary calculi at some point in their lives. Reduced urine volume or increased excretion of substances that might form stones, such as calcium, oxalate, urate, cysteine, xanthine, and phosphate, are linked to the formation of stones. The kidney's pelvis is where the stones develop, and they can be as little as microscopic particles or as large as the renal pelvis itself.<sup>1</sup>

However, the majority of them fall short of eliminating the underlying cause, which makes illness recurrence prevalent. These techniques have little impact on the pathophysiology that leads to calculus development. As a result, different treatment modalities have been mentioned for Ashmari by all of our Acharyas. Numerous pharmacological preparations and formulations are discussed in the treatment of Mutrashmari in the classical Ayurvedic texts.<sup>2</sup>

Ayurvedic classics such the Sushruta Samhita, Caraka Samhita, Ashtanga Hrudaya, Kaiyadeva Nighantu, Bhavaprakasa Nighantu, Rajanighantu, and Dhanwanthari Nighantu, among others, have references to narikella. Modern texts that stress this activity in a variety of disorders include Dravyaguna Vijana by P.V. Sharma and Dravyaguna Vijnana by Jnanendra Pandey. It is referenced in the treatment of Paithika Chardi in the Caraka Samhita. Narikela is mentioned in Sula chikitsadhikaara of Chakradatta. Narikela was cited by Bhava prakasa as a possible cure for Amlapitta. Its application to Vrana and Krimi roga is mentioned in Vaidyamanorama. Its applicability in Vipadika and Suryavartha is explained by Vrundamaadhava.<sup>3</sup>

There is a lot of information on the habitat, chemical makeup, medicinal usage, etc. of Narikela in textbooks like Dravyaguna vijnana by Prof. P.V. Sharma, The Ayurvedic Pharmacopoeia of India, Ayurvedic Materia Medica, and other works authored by contemporary experts. The material about Narikela, including its synonyms, qualities, activities, and different formulations with references to it in numerous Samhitas, Nighantus, Samgrahas, and other literature, has been collated, rigorously examined, and provided here.<sup>4</sup>

In order to obtain desired therapeutic responses fast from modest dosages without causing other undesirable consequences, ancient Ayurvedic academics developed several medicinal compositions. Such formulations required crude extraction, which was reliant on the type and solubility of active plant components in order to accomplish desired effect. By using open and closed burning of plant material, Mashi (a black-colored formulation prepared through incomplete oxidation) and Kshara Kalpana (a white-colored residue obtained after evaporation of filtrate of plant ash dissolved in water) are primarily prepared to obtain carbon- and alkali-dominant organic materials from plants, respectively. Kshar is a crucial therapeutic approach since it outperforms all surgical and parasurgical interventions. Ksharatherapy can be used to treat disorders that are challenging to treat, according to Acharya Vagbhata. Therefore, in order to guarantee the quality of Kshara, the preparation procedure needs to be validated.<sup>5</sup>

### **ASHMARI (UROLITHIASIS)**

Sushruta regarded Ashmari as one of the Mahagada due to its ability to cause problems with a person's life and urinary system.<sup>6</sup>

## Etymology

From "Ashma" and "Ari," the term "Ashmari" is formed. When combined, the words "Ashma" (stone) and "Ari" (enemy) signify "A stone-like material imparting immense anguish to somebody like an enemy."<sup>7</sup>

According to Shabdakalpadruma Ashma = Stone, Rati = to present

**Synonyms:** Ashmari, Ashmarih, Pathari, Stone gravel, calculus, calculi.

## Definition

Mutrashmari is the term for the formation of Ashma (stone-like) compounds within the urinary system. As described in numerous literature, the illness Ashmari is:

- Ashmari Mutrakricchhasyat (Amarakosha)
- Ashmari Mutrakricchha Bheda (Ayurvedic Shabdakosha)
- Mutra Vegdharana leads to Ashmari

## Nidana

Ashamshodhana and Apathya Sevana are the two primary Nidana of Ashmari, according to Sushruta.<sup>8</sup>

### Ashamshodhanasheela

Ashamshodhanasheelas are those who do not receive Shodhana treatment. Due to the natural buildup of Doshas, such as Chaya of Vata, Pitta, and Kapha occurring in Greeshma, Varsha, and Shishira Ritu, respectively, Acharya has suggested various Shodhana measures according to seasons.<sup>9</sup>

### Apathya Sevana

Apathya Sevana causes the Doshas and Kha-vaigunya in Mutravaha Srotas to become vitiated, which causes the vitiated Doshas to precipitate in the Mutravaha Srotas and create Ashmari.<sup>10</sup>

### According to Acharya Charka

Acharya Charaka discussed the ailment in the Mutrakricchra Prakarana rather than in a separate chapter. Thus, it is possible to consider the Nidana of Mutrakricchra and Ashmari to be identical. Vyayama, Tikshna Aushada, Ruksha Madhyasevana, Drutapristhayana, Anoopamamsa Sevana, Adhyasana, and Ajeerna Bhojana are among them.<sup>11</sup>

### According to Vagbhatta

- Snigdha Ahara Sevana
- Divaswapna
- Ajir nabhojana
- Madhura Ahara
- Adhyasana

## AIM & OBJECTIVES OF THE STUDY

- i) To evaluate the effect of Narikela Pushpa Kalka with Yava Kshara in the management of Mutrashmari.
- ii) To study the disease Mutrashmari in terms of its etio-pathogenesis, clinical manifestation with possible correlation to the description available in Ayurveda and modern literature for Urinary calculi.

## MATERIALS AND METHODS

**Data Collection-** Materials pertaining Narikela Pushpa Kalka with Yava Kshara & Urolithiasis, have been gathered from a variety of periodicals, books, Ayurvedic and modern textbooks, reputable articles, acclaimed reviews literature, manuscripts, etc. from central library of Ashwini Medical College Hospital and Research Centre, Tumkur.

**Drug collection** – identify the Narikela Pushpa, collected and preparation of Kalka according to classical method in pharmacy attached to Bhaishajya Kalpana Department, Ashwini Medical College Hospital and Research Centre, Tumkur. Yava Kshara from pharmacy of Ashwini Medical College Hospital and Research Centre, Tumkur. Weighing machine, measuring jar, spoon etc.

## METHODS OF STUDY

- Sampling method – Patients attending OPD and IPD, Department of Shalya Tantra, Ashwini Medical College Hospital and Research Centre, Tumkuru, was randomly selected.
- Sample size – 30 Patients
- Study period of the treatment was of 2 months. The patients was reviewed after every 7 days for first month and then once every 15 days for 1 month.



FIG No. 1.0



FIG No. 1.1

## DRUG REVIEW

**ROLE OF YAVA KSHARA-** Lekhana, Bhedana, Pacana, Sodhana, and Tridosghana are present in alkali. Alkali preparation of 11.73 pH barley. assisting in the neutralization of acidic media and preventing the development of stones. Properties that can completely relieve the signs and symptoms of renal calculi and facilitate the digestion and ejection of stones.<sup>12</sup>

**Role of narikela pushpa kalka** - The diuretic action, improvement of renal function, antioxidant activity, and vata pittahara may all contribute to the drug's lithotriptic action.<sup>13</sup>

## DIAGNOSTIC CRITERIA

The clinical study was comprise of a minimum of 30 patients fulfilling the inclusion criteria who was randomly selected and were subjected to clinical trial after taking due informed written consent.

## ELIGIBILITY CRITERIA

- Patients suffering from symptoms of Mutrashmari and being diagnosed by suitable imaging techniques.
- Age group: - 18 years to 50 years of age.
- Selection was be irrespective of sex, religion & socio-economic status.
- Patients with single or multiple calculi up to 10mm.

## EXCLUSION CRITERIA

- Age group:- less than 18 years and above 50 years of age.
- Patients suffering from diabetic mellitus, tuberculosis, hypertension, HIV, hepatitis, acid peptic disease, cardio vascular disease, gout, severe hydronephrosis ureter, thyroid disorder, other renal pathologies, bleeding disorders, contraindicated for Kshara like pitta prakriti etc.
- Bed ridden patients.
- Any physical or mental disability that hampers the patient from explicitly describing his/her condition.
- Pregnant women was not be included in the study.

## INVESTIGATION

- Complete Blood Count
- Blood urea, serum creatinine.
- Urine analysis routine and microscopic examination.
- Ultrasonography
- Radiography – X-ray (KUB)
- Any other investigations if necessary for the benefit of the Patient was done.

## PROCEDURE

Preparation of Kalka of Narikela Pushpa Kalka is prepared according to Classical method in pharmacy of Bhaishajya Kalpana Department, Ashwini Medical College Hospital and Research Centre, Tumkuru.

Then Kalka of 1 tola (12gm) is mixed with 4 Rati (500mg) of Yava Kshara & there after that Kalka is administered in the morning in a single dose for one day.

## ASSESSMENT CRITERIA

### GRADE SCORING

#### SUBJECTIVE CRITERIA

##### Pain

No pain (-)	-Grade 0
Bearable pain but does not disturb routine (+)	- Grade 1
Bearable pain which disturb routine (++)	- Grade 2
Patient rolls on bed due to pain (+++)	- Grade 3

##### Burning micturition

No burning micturition (-)	- Grade 0
Occasional burning micturition (+)	- Grade 1
Regular burning micturition, medicine not Require (++)	- Grade 2
Regular burning micturition, medicine require (+++)	- Grade 3

##### Hematuria

No hematuria (0)	- Grade 0
Microscopic RBC present (+),occasionally	- Grade 1
Microscopic RBC present (++) ,regular	- Grade 2
Microscopic RBC present(+++), plenty	- Grade 3

##### Frequency of micturition

5-6 times /day & night	- Grade 0
7-8 times / day & night	- Grade 1
9-10 times / day & night	- Grade 2
More than 10 times / day & night	- Grade 3

**Dysuria**

No Pain during micturition &	
Does not disturb the routine	- Grade 0
Mild pain during micturition & Disturb the routine (+)	- Grade 1
Moderate pain during micturition &	
Disturb the routine (++)	- Grade 2
Severe pain during micturition &	
And requiring medication (+++)	- Grade 3

**OBJECTIVE CRITERIA**

Stone number:

Nil stone - Grade 0

Decrease in the number of stone - Grade 1

No change in the number of stone - Grade 2

**Size:**

Nil of stone - Grade 0

Decrease in the size of the stone - Grade 1

No change in the size of the stone - Grade 2

**Site:**

Complete expulsion of the stone - Grade 0

Descent of the stone - Grade 1

No change in the site of the stone - Grade 2

**CRITERIA FOR OVERALL ASSESSMENT OF THERAPY**

Marked improvement : 76<100% relief in sign and symptom  
&76<100% decrease in size of stone

Moderate improvement	:	51<75% relief in sign and symptom &51<75% decrease in size of stone and Symptom
Mild improvement	:	26<50% relief in sign and symptom 0&26<50% decrease in size of stone
Poor improvement	:	<25% relief in sign and symptom &<25% Decrease in size of stone

## STASTICAL ANALYSIS

All information gathered & statistical analysis were carried out in terms of Mean (X), Standard Deviation (S.D), Standard Error (S.E), Paired Test ( t ), Unpaired 't' test and Z test

## OBSERVATION

- In the sample taken for the study, 46.67% of males were registered in comparison to 53.33% of females.
- Analysis of age incidence of 30 patients suffering from Mutrashmari showed more number of patients between the age group of 31-40 years i.e. 43.33%
- Out of 30 patients Housewife 16.67% , Teacher 13.33% , Banker 10% , student 10% , Nurse 6.67% , Govt servant 6.67 % , Doctor 6.67% , Driver 6.67% , Business man 6.67% , Dentist 3.33% , Engineer 3.33% , Welder 3.33% , Coach 3.33% , Helper 3.33 %.
- Out of 30 patients, 83.33% patients were married and 16.67% patients were unmarried.
- Out of 30 patients' maximum patients Diet were mixed (60%)
- Out of 30 patients' maximum patients were Hindu Religion (93.33%).
- Out of 30 patients' maximum patients' site of stone were expelled.

## RESULTS

### Effect on Number of Stone:

Statistical analysis showed that the mean score which was 1.27in before treatment, was reduced to 0.33 the after treatment with 73.68% improvement, and there is a statistically significant change. (P<0.05)

### Effect on Haematuria:

Statistical analysis showed that the mean score which was 0.77 in before treatment, was reduced to 0.10 the after treatment with 86.96% improvement, and there is a statistically significant change. (P<0.05)

### Effect on Cast/Crystal:

Statistical analysis showed that the mean score which was 0.17 in before treatment, was reduced to 0.07 the after treatment with 60% improvement, and there is a statistically significant change. (P<0.05)

**Effect on Abdomen Pain:****Effect on Dysuria:**

Statistical analysis showed that the mean score which was 1.33 in before treatment was reduced to 0.13 the after treatment with 90% improvement, and there is a statistically significant change. ( $P < 0.05$ )

**Effect on Frequency of Micturition:**

Statistical analysis showed that the mean score which was 1.33 in before treatment was reduced to 0.50 the after treatment with 62.50% improvement, and there is a statistically significant change. ( $P < 0.05$ ). Statistical analysis showed that the mean score which was 1.63 in before treatment, was reduced to 0.23 the after treatment with 85.71% improvement, and there is a statistically significant change. ( $P < 0.05$ ).

**Effect on Dysuria:**

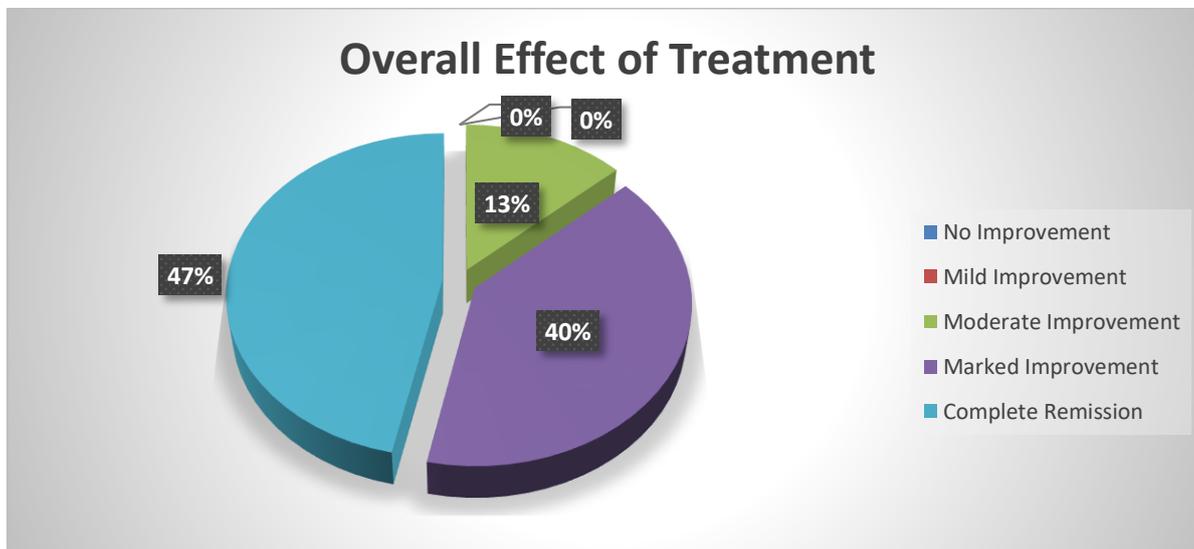
Statistical analysis showed that the mean score which was 1.33 in before treatment was reduced to 0.13 the after treatment with 90% improvement, and there is a statistically significant change. ( $P < 0.05$ )

**Effect on Frequency of Micturition:**

Statistical analysis showed that the mean score which was 1.33 in before treatment was reduced to 0.50 the after treatment with 62.50% improvement, and there is a statistically significant change. ( $P < 0.05$ )

**Overall effect of treatment**

OVER ALL EFFECT OF TREATMENT			
	Grading	Relief in Percentage	Relief in Patients
1	No Improvement	0%	0
2	Mild Improvement	1-30 %	0
3	Moderate Improvement	31 – 60%	4
4	Marked Improvement	61 – 99 %	12
5	Complete Remission	100%	14



## DISCUSSION

The primary cause of Ashmari pathogenesis, or the binding of Ashmari, is Kapha Dosha. Urine usually tends to become concentrated and contaminated when it becomes stagnant in the urinary tract. As a result, the likelihood of calculi development is enhanced. Kaphahara, Srotoshodhana, Vata anulomana, particularly Apana Vayu Anulomana appropriate management of Agni, and elimination of extra waste should therefore be the major lines of therapy. The principal Dosha in formation, Kapha Vata Shaman, will be done by the medications with Katu, Tikta, Kashaya Rasa, Katu Vipaka, and Ushna Virya, as well as Apana Vayu Shaman. In Mutrashmari, pain management is a crucial strategy. The outcome is severe spasmodic or colicky discomfort. when calculus lodges at a particular juncture or advances downhill via the urinary stream. Hematuria develops as a result of the projecting component damaging the urinary system. Yava Kshara and Narikel Puspa both include the drug Kashaya Rasa, which performs the action of Stambhana and stops or reduces haematuria. Additionally, Narikel Puspa has Sheeta Virya, which also performs Stambhana. The medications aid to shrink the Ashmari and eliminate it from the body through their Bhedana, Ashmarihara, and Kaphahara Karmas as well as Mutrala Karma.<sup>14</sup>

In the sample taken for the study, 46.67% of males were registered in comparison to 53.33% of females. Analysis of age incidence of 30 patients suffering from Mutrashmari showed more number of patients between the age group of 31-40 years i.e. 43.33%. Out of 30 patients Housewife 16.67% , Teacher 13.33% , Banker 10%, student 10%, Nurse 6.67%, Govt servant 6.67% , Doctor 6.67%, Driver 6.67%, Business man 6.67%, Dentist 3.33%, Engineer 3.33% , Welder 3.33%, Coach 3.33%, Helper 3.33% . Out of 30 patients, 83.33% patients were married and 16.67% patients were unmarried. Out of 30 patients' maximum patients Diet were mixed (60%). Out of 30 patients' maximum patients were Hindu Religion (93.33%). Out of 30 patients' maximum patients' site of stone were expelled. Statistical analysis showed that the mean score which was 1.33 in before treatment was reduced to 0.13 the after treatment with 90% improvement, and there is a statistically significant change. (P<0.05)

Effect on Frequency of Micturition- Statistical analysis showed that the mean score which was 1.33 in before treatment was reduced to 0.50 the after treatment with 62.50% improvement, and there is a statistically significant change. (P<0.05). Statistical analysis showed that the mean score which was 1.63 in before treatment, was reduced to 0.23 the after treatment with 85.71% improvement, and there is a statistically significant change. (P<0.05). Effect on Dysuria- Statistical analysis showed that the mean score which was 1.33 in before treatment was reduced to 0.13 the after treatment with 90% improvement, and there is a statistically significant change. (P<0.05) Effect on Frequency of Micturition- Statistical analysis showed that the mean score which was 1.33 in before treatment was reduced to 0.50 the after treatment with 62.50% improvement, and there is a statistically significant change. (P<0.05)

## CONCLUSION

To prevent the recurrence of Mutrashmari, it is essential to have a thorough awareness of the etiological causes. Mutrashmari may be treated appropriately with adequate Pathya-pathya and frequent Shodhana at intervals. i.e. Statistical analysis showed that the mean score which was 1.33 in before treatment was reduced to 0.13 the after treatment with 90% improvement, and there is a statistically significant change. (P<0.05). Statistical analysis showed that the mean score which was 1.33 in before treatment was reduced to 0.50 the after treatment with 62.50% improvement, and there is a statistically significant change. (P<0.05) Hence, Narikela Pushpa Kalka with Yava Kshara was significant effective in the Management of Mutrashmari i.e. Urolithiasis.

*Conflict of interest –Nil*

*Source of Support –Nil*

## REFERENCES

1. Sushruta, Sushruta Samhita, Nidana sthana, (Nibandhasangraha commentary of Sri Dalhanacharya and Nyayachandrika Panjika of Sri Gayadas Acharya of Nidana sthana), Acharya Vaidya Yadavji Trikamji, Varanasi, Chaukhambha Sanskrit Sansthana, Reprint 2005, 33/4, Pp 824, P 144.
2. Prof. K.R. Srikanth Murthy, Sushruta Samhita of Sushruta, Chikitsasthana, 7/ 3, Edition Reprint 2016, Vol. II, Chaukhambha Orientalia, Varanasi, Pp- 516, P 87
3. Dev Raja Radhakanta, Shabda kalpadhrama, First Kand, Jawahar Nagar Delhi, Nag Publishers, P 141, Pp 315.
4. Shastri Hari Govind, Amarkosha, Manushyavarga, Dvitiya Kand,6/66, 3rd Edition 1997, Pub: Chaukhamba Sanskrit Sansthana, Varanasi, Pp668, P 284.
5. Pt. Paradkar Bhisagacharya Harishastri (Ed), Ashtanga Hrdaya of Vagbhata with the commentaries of Sarvangasundara of Arundatta and Ayurveda rasayana of Hemadri, Sutra sthana, 4/4, Edition 2009, Chaukhambha krishnadas Academy, Varanasi, P 53, Pp. 956.
6. Vaidya Yadavji Trikamji Acharya, Sushruta Samhita of Sushruta, with Nibandhasangraha commentary of Sri Dalhanacharya and the Nyayachandrika Panjika of Sri Gayadasacharya, Nidana sthana,3/4, Reprint 2010, Chaukhambha Sanskrit Sansthan, Varanasi, P 277, Pp824.

7. Agnivesha, Charaka Samhita, Vaidya Yadavji Trikamji Acharya, Sutra Sthana, 7/45-49, Edition reprint 2018, Pub: Chaukhambha Sanskrit Sansthana, Varanasi, P 53, Pp 738.
8. Agnivesha, Charaka Samhita, Vaidya Yadavji Trikamji Acharya, Chikitsa Sthana, 26/32-35, Edition reprint 2018, Pub: Chaukhambha Sanskrit Sansthana, Varanasi, P 599, Pp 738.
9. Agnivesha, Charaka Samhita, Vaidya Yadavji Trikamji Acharya, Chikitsa Sthana, 26/32-35, Edition reprint 2018, Pub: Chaukhambha Sanskrit Sansthana, Varanasi, P 599, Pp 738.
10. Vaidya Yadavji Trikamji Acharya, Sushruta Samhita of Sushruta, with Nibandhasangraha commentary of Sri Dalhanacharya and the Nyayachandrika Panjika of Sri Gayadasacharya, Nidana sthana,3/5-6, Reprint 2010, Chaukhambha Sanskrit Sansthan, Varanasi, P 277, Pp824.
11. Pt. Paradkar Bhisagacharya Harishastri (Ed), Ashtanga Hridaya of Vagbhata with the commentaries of Sarvangasundara of Arundatta and Ayurveda rasayana of Hemadri, Nidana sthana, 1/8, Edition 2009, Chaukhambha krishnadas Academy, Varanasi, P 443, Pp. 956.
12. Vaidya Yadavji Trikamji Acharya, Sushruta Samhita of Sushruta, with Nibandhasangraha commentary of Sri Dalhanacharya and the Nyayachandrika Panjika of Sri Gayadasacharya, Nidana sthana,3/4, Reprint 2010, Chaukhambha Sanskrit Sansthan, Varanasi, P 277, Pp824
13. Vaidya Yadavji Trikamji Acharya, Sushruta Samhita of Sushruta, with Nibandhasangraha commentary of Sri Dalhanacharya and the Nyayachandrika Panjika of Sri Gayadasacharya, Nidana sthana,3/25, Reprint 2010, Chaukhambha Sanskrit Sansthan, Varanasi, P 280, Pp824.
14. Vaidya Yadavji Trikamji Acharya, Sushruta Samhita of Sushruta, with Nibandhasangraha commentary of Sri Dalhanacharya and the Nyayachandrika Panjika of Sri Gayadasacharya, Nidana sthana,3/10, Reprint 2010, Chaukhambha Sanskrit Sansthan, Varanasi, P 278, Pp824.