

International Research Journal of Ayurveda & Yoga

Vol. 6 (5),103-107, May,2023

ISSN: 2581-785X: <https://irjay.com/>

DOI: [10.47223/IRJAY.2023.6516](https://doi.org/10.47223/IRJAY.2023.6516)



The Drugs of *Mutravaha Strotas* (Renal System) - A Review.

Umakant N. Rabb¹, Nitin alias Rahul Dhanpal Ruge²

1-Associate Professor, Department of Dravyaguna Vijnana, Shri Ravi Patil Health and Education Society's, Dr. Ravi Patil Ayurvedic Medical College, Hospital and Research Centre, Honaga, Belagavi, Karnataka, India.

2-Associate Professor, Department of Sharira Rachana, Shantabai Shivshankar Arali Ayurvedic Hospital and College, Jath, Maharashtra, India

Article Info

Article history:

Received on: 18-04-2023

Accepted on: 24-05-2023

Available online: 31-05-2023

Corresponding author-

Umakant N. Rabb, Associate Professor, Department of Dravyaguna Vijnana, Shri Ravi Patil Health and Education Society's, Dr. Ravi Patil Ayurvedic Medical College, Hospital and Research Centre, Honaga, Belagavi, Karnataka, India.

Email: drumeshrabb@gmail.com

ABSTRACT:

The importance of *Mutravaha Strotas* (urinary / Renal system) not only responsible for homeostasis of fluids in the body but also in detoxifies the body by eliminating waste products through *Mutra*(Urine). The renal disorders are *Mutra Vriddhi* (increased), *Mutra Kshaya* (decreased urine), *Mutra Krichra* (Painful micturition), *Mutra Ashmari*(Formation of stones), *Mutra Krichra*(Obstructed during micturition). The drugs are; *Jambu*(*Syzygium cumini* Linn), *Amra*(*Mangifera indica* Linn), *Plaksha*(*Ficus lacor* Buch-Ham), *Vata*(*Ficus bengalensis* Linn), *Kapeetana*(*Albizia lebeck*), *Udumbara*(*Ficus glomerata* Roxb), *Ashwattha*(*Ficus religiosa* Linn), *Bhallataka*(*Semicarpus anacardium* Linn), *Ashmantaka* (*Ficus rumphii* Blume), *Somavalka*(*Myrica esculenta* Buch-Ham). The *Mutravirajaniya Dravyas* which give normal colour to the urine are; *Padma*(*Nelumbo nucifera*), *Utpala*(*Nymphaea stellate* Willd), *Nalina*(Variety of *Kamala*), *Kumuda* (*Nymphaea nouchaki* Burm.f), *Saugandhika*(Variety of *Utpala*), *Pundarika*(*Nelumbo nucifera* A white variety of Lotus), *Shatapatra*(Variety of Lotus), *Yasthimadhu*(*Glycyrrhiza glabra* Linn), *Priyangu* (*Callicarpa macrophylla* Vahl), *Dhatakpushpa*(*Woodfordia fruticosa* Kurtz). The *Mutraverechaniya* are the drugs which remove excess urine from the body called as *Mutra Virechaniya Dravyas*. The drugs belonging to this group are also acts as diuretic. This paper gives an attempt to summarize the drugs works in *mutraveh strotas*.

Keywords- *Mutravaha Stroto Vikaras*, , *Ashmarighna Dravyas*, *Mutrasangrahaniya Dravyas*,

INTRODUCTION

In house hold and societies there are various resolutions for waste management. Like wise same physical systems conjoin to encounter this requirement in the human body.

Such system is known as Urinary system. In Ayurveda the *Mutravaha Strotas*(Urinary system) and *Mutravaha Stroto Vikaras*(Urinary disorders) have given crucial significance.



This work is licensed under a CC BY 4.0 License

The normal functioning of urinary system is hampered during disease conditions like *Prameha* (Urinary disorders diabetes), *Somaroga* (Urinary diseases), *Mutrakrichra* (Difficulty in urination), *Mutraghata* (Loss of micturation), *Ashmari* (Renal calculi), *Udavarta* (Upward movement of the *Vata Dosha* due to obstruction), and so on. In such conditions many herbs are used, some of which act directly on the urinary system and some are act indirectly, to maintaining the normal functioning of the system. These group of drugs have been discussed here systematically.

MATERIAL AND METHODS

1. The different concepts and classifications, assessment was done on the basis of various *Ayurvedic* texts and digital data.
2. Literary survey was done strictly through various *Ayurvedic* classical texts and modern digital data.

AIMS AND OBJECTIVES

1. The aim of the present work is to highlighted the concept of drugs acting on *Mutravaha Stroto Vikaras*.
2. The objective is to elaborate the concept of highlighted drugs acting on *Mutravaha Stroto Vikaras* according to different *Ayurvedic* texts along with digital data.

RESULTS

The *Mutrasangraheeya Dravyas*- The *Dravyas* cause recession of excess *Mutra Pravritti* rather than altering the normal quantity, and are hence utilized in *Kleda Pradhana Vyadhis* like *Prameha*, where *Mutra Atipravritti* is seen. Most of them are *Tikta, Katu, Kashaya Rasa*, and *Ruksha Guna Pradhana. Dravyas* having such properties are said to cause *Baddhamutrata*. *Acharya Charaka* has categorized some of these *Dravyas* under *Mutrasangraheeya Dashemani*,^[3] whereas, *Nyagrodhadi* and *Saalaradi Gana* by *Acharya Sushruta* serve the same purpose. In a clinical trial with 80 non-insulin-dependent diabetes mellitus (NIDDM) patients the seed powder (12 g/day in three divided doses) was administered for three months, the drug produced relief in symptoms like polyuria, along with regulation of blood sugar.

The *Mutra Virechaniya Dravyas*- In case of obstruction ie oligo uria, anuria, chronic renal failure, prostatomegaly where the urine is obstructed. Certain active principles derived from the *Vidarikanda* contains sugar and due to

their osmotic activity these substances oppose the re-absorption of water from the glomerular filtration. These substances produce more elimination of water than sodium, and hence produce diuresis action. Many plants from Fabaceae, Liliaceae, Solanaceae, contain spironolactone, which is a diuretic. Drugs like *Arjuna* (*Terminalia arjuna* Roxb.) contain triterpenoid saponin called arjunolic acid, which produces diuresis. Other saponins called Bacosides A and B found in *Brahmi* (*Bacopa monneiri* Linn.), also cause diuresis. Certain glycosides called Cardiac glycosides, are found in *Vanapalandu* and *Shatavarin* found in *Shatavari* (*Asparagus racemosus* Linn.), and Flavonol glycoside Psoralen found in *Bakuchi* seed also cause diuresis. Other than glycosides certain alkaloids like Punernavoside found in *Punarnava* (*Boerhavia diffusa* Linn.) and Purin alkaloids like Caffeine, Theobromine, Theophylline found in drugs like Coffee, Cocoa, Tea are said to be diuretic. Drugs like *Gokshura* contain potassium alkali. *Kushmanda* (*Benincasa hispida* Thunb) is said to be *Basti Shuddhikara* and the *Srishta Mutrakaraka* and Mannitol content of *Kushmanda* has been attributed to these functions. The *Mutravirajaneeya Dravyas*- The drugs which give normal colour to the urine and reduce the *Dosha Dusthi* called as *Mutravirajaniya Dravyas*. The Drugs like *Padma, Utpala, Nalina*, of *Mutravirajaneeya* drugs, being *Kashaya*(Astringent) and *Sheeta*(Cold in potency), bring about *Dushita Pitta* in its normal condition, and hence, are useful in the case of discolored urine. The *Utpaladi Gana* of *Sushruta*, possess similar properties. The *Ashmarighna Dravyas*- *Ashmari* in *Ayurveda* refers to urolithiasis or calculi and the herbs that break the formed calculi and expel it from the body, and also prevent further formation of calculi are known as *Ashmarighna Dravyas*. The drug like *Gokshura* has potassium nitrates and thus helps in preventing urolithiasis. The aqueous extract of *Tribulus terrestris* (5 g/kg p.o./day) was tested in six male rats in whom hyperoxaluria was induced. A 24-hour urinary oxalate excretion reversed to normal, from 1.97 ± 0.314 to 0.144 ± 0.004 mg/mg creatinine ($P < 0.001$), within 21 days of administration of the drug and remained so until 15 days after withdrawal of the extract and sodium glycoate.

DISCUSSION

The above results were discussed briefly as follows;

The *Mutrasangraheeya Dravyas*

“*Ati Pravrttam Mutram Yat Sangrhaati Tat Mutra*

*Sangrahnneeyanam*¹

The drugs which control excess elimination of urine called as *Mutrasangrahaniya Dravyas*. These drugs are mainly *Kashaya* in *Rasa*(Astringent) and helps to absorb excess fluid secretion in the body. The drugs are; *Jambu*(*Syzygium cumini* Linn), *Amra*(*Mangifera indica* Linn), *Plaksha* (*Ficus lacor* Buch-Ham), *Vata*(*Ficus bengalensis* Linn), *Kapeetana*(*Albizia lebbek*), *Udumbara*(*Ficus glomerata* Roxb), *Ashwattha*(*Ficus religiosa* Linn), *Bhallataka*(*Semecarpus anacardium* Linn), *Ashmantaka* (*Ficus rumphii* Blume), *Somavalka*(*Myrica esculenta* Buch-Ham). These *Dravyas* cause recession of excess *Mutra Pravritti* rather than altering the normal quantity, and are hence utilized in *Kleda Pradhana Vyadhis* like *Prameha*, where *Mutra Atipravritti* is seen.² Most of them are *Tikta*, *Katu*, *Kashaya Rasa*, and *Ruksha Guna Pradhana*. *Dravyas* having such properties are said to cause *Baddhamutrata*.³ *Acharya Charaka* has categorized some of these *Dravyas* under *Mutrasangrahnneeya Dashemani*,³ whereas, *Nyagrodhadi* and *Saalaradi Gana* by *Acharya Sushruta*⁴ serve the same purpose. In case of *Jambu Phala*(*Syzygium cumini*) is *Mutra Sangrahnaka*⁵ In a clinical trial with 80 non-insulin-dependent diabetes mellitus (NIDDM) patients the seed powder (12 g/day in three divided doses) was administered for three months, the drug produced relief in symptoms like polyuria, along with regulation of blood sugar.⁶ Some drugs like *Ketaki* (*Pandanus odoratissimus* Linn. F.), *Yashtimadhu* (*Glycyrrhiza glabra* Linn.), *Yava* (*Hordeum vulgare* Linn.), even though not included under classical groups(*Ganas*) have been seen to reduce polyuria. *Ketaki Moola* is said to be *Mootra Sangrahnneeya*. The *Yava* have the qualities like *Medoghna*(Anti lipidemic action) and cause *Baddha Mutrata*(Causes recession of urine)⁷. *Yashtimadhu*(*Glycyrrhiza glabra*), when taken in large doses reduces urine output. It is due to the presence of *Glycyrrhetic acid*, which causes sodium retention⁸ Certain purgatives like *Senna* (*Cassia senna* Linn.) and *Kumari* (*Aloe vera* Tourn.) reduce water re-absorption thereby reducing urine output. The combination of *Dravyas* like *Nisha*(*Curcuma longa*) *Amalaki*(*Embelica officinalis*) and *Triphala*(Three myrobalans-*Haritaki-Vibhitaki-Amalaki*) is also *Bahu Mutra Shoshaka*(Absorb excess urine)⁹

The *Mutra Virechaniya Dravyas*-

"*Yat Dravyam Mutrasya Atipravartanam Karoti Tat*

*Mutravirechaneeyam*¹⁰

In case of obstruction ie oligo uria, anuria, chronic renal failure, prostatomegaly where the urine is obstructed. The drugs which remove excess urine through relaxation of the subsidiary muscles called as *Mutra Virechaniya Dravyas*. The drugs belong to this group are also called as diuretic. Viz; *Vrikshadani*(*Loranthus longiflora*), *Gokshura*(*Tribulus terrestris* Linn), *Vasuka*(A variety of *Mimosops elengi*), *Vashira*(Red variety of *Achyranthus bidentata*), *Pashanabheda*(*Bergenia ligulata* Wall), *Darbha*(*Imperata cylindrical* Beauv), *Kusha*(*Desmostachya bipinnata* Stapf), *Kasha*(*Saccharum spontaneum* Linn), *Gundra*(*Typha angustata*), *Itkata mula*(*Typha elephantina*). These *Dravyas* cause diuresis by increasing the production of urine, causing easy flow of urine and stimulating the organs of the urinary system. Most of the *Mutravirechaneeya Dravyas* are *Sheeta*(Cold in potency), aggravates *Kapha* and *Dravata*(Fluid) in the body. Among them *Ikshu*(*Sacchararum officinarum*) and *Gokshura* (*Tribulus terrestris* Linn.) are considered to be *Shreshta*, whereas, *Dravyas* like *Ela*, *Gomutra* (Cow's urine), and *Vana Palandu* (*Urginea indica* Roxb), being *Ushna Veerya*(Hot in potency), cause *Virechana* of the *Mutra*¹¹. Certain active principles derived from the *Vidarikanda* contains sugar and due to their osmotic activity these substances oppose the re-absorption of water from the glomerular filtration. These substances produce more elimination of water than sodium, and hence produce diuresis action¹². Many plants from Fabaceae, Liliaceae, Solanaceae, contain spironolactone, which is a diuretic.¹³ Drugs like *Arjuna* (*Terminalia arjuna* Roxb.) contain triterpenoid saponin called arjunolic acid, which produces diuresis¹⁴. Other saponins called Bacosides A and B found in *Brahmi* (*Bacopa monneiri* Linn.), also cause diuresis.¹⁵ Certain glycosides called Cardiac glycosides, are found in *Vanapalandu*¹⁶ and *Shatavarin* found in *Shatavari* (*Asparagus racemosus* Linn.)¹⁷, and Flavonol glycoside Psoralen found in *Bakuchi* seeds¹⁸ also cause diuresis. Other than glycosides certain alkaloids like Punernavoside found in *Punarnava* (*Boerhavia diffusa* Linn.) and Purin alkaloids like Caffeine, Theobromine, Theophylline found in drugs like Coffee, Cocoa, Tea are said to be diuretic.¹⁹ Drugs like *Gokshura* contain potassium alkali. The diuresis is due to the potassium content of the *Gokshura* extract.²⁰ *Kushmanda* (*Benincasa hispida* Thunb). is said to be *Basti Shuddhikara* and the *Srishta Mutrakaraka* and Mannitol content of *Kushmanda* has been attributed to these functions.²¹

The *Mutravirajaneeya Dravyas*

"*Dosha Dushtam Mutram Viranjayitva Prakrtav Sthapayati Tad Mutravirajaneeyam*"²²

The drugs which give normal colour to the urine and reduce the *Dosha Dusthi* called as *Mutravirajaniya Dravyas*. The drugs are; *Padma*(*Nelumbo nucifera*), *Utpala*(*Nymphaea stellate* Willd), *Nalina*(Variety of *Kamala*), *Kumuda* (*Nymphaea nouchaki* Burm.f), *Saugandhika*(Variety of *Utpala*), *Pundarika*(*Nelumbo nucifera* A white variety of Lotus), *Shatapatra*(Variety of Lotus), *Yasthimadhu*(*Glycyrrhiza glabra* Linn), *Priyangu* (*Callicarpa macrophylla* Vahl), *Dhatakpushpa*(*Woodfordia fruticosa* Kurtz). In some conditions like *Agnimandya* and *Amajeerna*, the digestion of food and subsequent *Sara Kitta Vibhajana* do not take place properly leading to improper formation of urine or discolored urine. In conditions like *Kamala*(Jaundice), *Pandu*(Anemia), *Haridra Meha*(Yellow urination), *Manjishtha Meha*(Red colour urination), etc *Strotavarodha*(Obstruction in the channels) and *Dosha Dushti* leads to discolored urine. *Dravyas* like *Haridra* (*Curcuma longa* Linn.), *Chitraka* (*Plumbago zeylanica* Linn.), *Vidanga*(*Embelia ribes*) being *Katu*(Pungent in taste) and *Ushna*(Hot in potency) cause *Samyak Pachana* and *Stroto Shodhana*(Cleanses the channels). The Drugs like *Padma*, *Utpala*, *Nalina*, of *Mutravirajaneeya* drugs, being *Kashaya*(Astringent) and *Sheeta*(Cold in potency), bring about *Dushita Pitta* in its normal condition, and hence, are useful in the case of discolored urine.²³ The *Utpaladi Gana* of *Sushruta*, possess similar properties.²⁴

The *Ashmarighna Dravyas*

Ashmari in *Ayurveda* refers to urolithiasis or calculi and the herbs that break the formed calculi and expel it from the body, and also prevent further formation of calculi are known as *Ashmarighna Dravyas*. These drugs are lithotriptic in action. The *Dravyas* of *Pashanabheda* (*Bergenia ciliata* Sternb.), *Kulattha* (*Dolichos biflorus* Linn.), *Shigru Mula* (Roots of *Moringa olifera* Lam.), *Varuna* (*Crataeva nurvala* Buch-Ham.), *Gorakshaganja* (*Aerva lanata* L.) have proven drugs as the best *Ashmarighna Dravyas*. The drug like *Gokshura* has potassium nitrates and thus helps in preventing urolithiasis. The aqueous extract of *Tribulus terrestris* (5 g/kg p.o./day) was tested in six male rats in whom hyperoxaluria was induced. A 24-hour urinary oxalate excretion reversed to normal, from 1.97 ± 0.314 to

0.144 ± 0.004 mg/mg creatinine ($P < 0.001$), within 21 days of administration of the drug and remained so until 15 days after withdrawal of the extract and sodium glycoate.²⁵

CONCLUSION

There are various drugs with diverse pharmacological actions precisely intended at moderating urinary system diseases. These drugs when used beneath appropriate way and benefit in get rid of the pain and apathy triggered by the diseases. For improved thoughtful of the drugs that are considered for *Mutravaha Strotas* complaints, they can be congregated as *Mutra Sangrahaniya Dravyas*, *Mutra Virechaniya Dravyas*, *Mutra Virechaniya Dravyas*, *Ashmarighna Dravyas*. The conditions like hypertension, general edema etc, involved in the urinary system. Researches and experimental studies have contributed many newer drugs in this regard. The drugs like *Gokshura* act as both a *Mutrala* and an *Ashmarighna*. *Punarnava* has diuretic and hepatoprotective actions. When describing the herbs and their actions, the terms *Mutrala* and *Mutra Virechaneeya* seem to be similar, although there is a minute difference in their understanding. *Mutrala Dravyas* are those that increase the quantity of the urine and may not expel it. However, *Mutra Virechaneeya Dravyas* are those, which increase the quantity of urine produced, and cause easy expulsion. *Mutra Virajaneeya Dravyas* are the drugs which give normal color to the urine.

Acknowledgment- Nil

Conflicts Of Interest- Nil

Source of finance & support – Nil

ORCID

Umakant , <https://orcid.org/0000-0001-7311-2079>

REFERENCES

1. Phadke A. *Dravyaguna Shastram*, Prathama Pushpa. In: Joshi H, editor. published by Vaidya Vamana Rao Deenanath. Mumbai: Shudhhayurved Patya Samiti; 1960. Page No- 26.
2. Tripathi B, *Ashtanga Hrudaya*, Sutrasthana, Chapter 10 Shloka 24, editor. Reprint. Varanasi: Chaukamba Sanskrit Pratishthaan; 2003. Vagbhata. ; Page No- 155.
3. Agnivesha *Charaka Samhita*, Sutrasthana, Chapter 4 Shloka No- 21; Datta R, editor. Reprint. Varanasi: Chaukamba Bharati Academy; 2001. Page No- 89.

4. Ambikadatta K, Sushruta, Sushruta Samhita, Purvardha, Sutrasthana, Chapter 38 Shloka No-4; editor. 16th ed. Varanasi: Chaukambha Sanskrit Sansthan; 2003. Page No-142.
5. Phadke A. Dravyaguna Shastram, Prathama Pushpa. In: Joshi H, editor. published by Vaidya Vamana Rao Deenanath. Mumbai: Shudhhayurved Patya Samiti; 1960. Page No- 205.
6. Kohli KR, Singh RH. A clinical trial of in NIDDM. J Res Ayurveda Sidha. 1993;14: Page No-89-97.
7. Shastri BB, editor. Yogaratnakara. Hindi comm. by Sastri L. Chaukamba Sanskrit Series. Uttaradha, Premeha chikista, Shloka 1. Varanasi: Chaukhamba orientalia, Varanasi; 2005.
8. Kokate CK, Purohit AP, Gokhale SB. Textbook of Pharmacognosy 24th ed. Pune: Nirali publication; 2003. ; Page No- 215.
9. Shastri BB, editor. Yogaratnakara. Hindi commentary. by Sastri L. Chaukamba Sanskrit Series. Uttaradha, Bahumutra chikitsa, Shloka 1. Varanasi: Chaukhamba orientalia, Varanasi; 2005.
10. Phadke A. Dravyaguna Shastram, Prathama Pushpa. In: Joshi H, editor. published by Vaidya Vamana Rao Deenanath. Mumbai: Shudhhayurved Patya Samiti; 1960. Page No- 26,27.
11. Phadke A. Dravyaguna Shastram, Prathama Pushpa. In: Joshi H, editor. published by Vaidya Vamana Rao Deenanath. Mumbai: Shudhhayurved Patya Samiti; 1960. Page No- 27.
12. Rabinarayan A. Jamnagar: IPGTRA; 1996. Mar, A study on Vidarikanda with special reference to its Vrishya Karma, Ph.D thesis, submitted to Dept of Dravyaguna Vijnana.
13. Kokate CK, Purohit AP, Gokhale SB. Textbook of Pharmacognosy 24th ed. Pune: Nirali Publication; 2003.
14. Handa SS, Kapoor VK. Pharmacognosy 2nd ed. Delhi: Vallabh Prakashan; 1999. ; Page No- 218.
15. Kokate CK, Purohit AP, Gokhale SB. Textbook of Pharmacognosy 24th ed. Pune: Nirali Publication; 2003. ; Page No- 218.
16. Kokate CK, Purohit AP, Gokhale SB. Textbook of Pharmacognosy; 24th ed. Pune: Nirali Publication; 2003. Page No-204.
17. Kokate CK, Purohit AP, Gokhale SB. Textbook of Pharmacognosy 24th ed. Pune: Nirali Publication; 2003. ; Page No- 217.
18. Kokate CK, Purohit AP, Gokhale SB. Textbook of Pharmacognosy 24th ed. Pune: Nirali Publication; 2003. ; Page No-238.
19. Kokate CK, Purohit AP, Gokhale SB. Textbook of Pharmacognosy; 24th ed. Pune: Nirali Publication; 2003. Page No- 511.
20. Shastri JL. Dravya Guna Vignana 1st ed. Vol. 1. Varanasi: Chaukhamba Orientalia; 2004. Illustrated ; Page No- 102.
21. Lakshmi V, Mitra CR. Constituents of *Benincasa hispida*. Pharm Biol. 1976;14:163-4.
22. Phadke A. Dravyaguna Shastram, Prathama Pushpa. In: Joshi H, editor. published by Vaidya Vamana Rao Deenanath. Mumbai: Shudhhayurved Patya Samiti; 1960. Page No- 26.
23. Phadke A. Dravyaguna Shastram, Prathama Pushpa. In: Joshi H, editor. published by Vaidya Vamana Rao Deenanath. Mumbai: Shudhhayurved Patya Samiti; 1960. Page No-205.
24. Ambikadatta K, editor. Sushruta Samhita, Purvardha, Sutrasthana, Chapter 38 Shloka No-52; 16th ed. Varanasi: Chaukambha Sanskrit Sansthan; 2003. Page No-. 145.
25. Sangeeta D, Sidhu H, Thind SK, Nath R. Effect of *Tribulus terrestris* on oxalate metabolism in rats. J Ethnopharmacol. 1994;44:61-6.

How to cite this article: Rabb U.N, Ruge N.R “The Drugs of *Mutravaha Strotas* (Renal System) - A Review” IRJAY. [online] 2023;6(5);103-107.
Available from: <https://irjay.com>.
DOI link- <https://doi.org/10.47223/IRJAY.2023.6516>