

Mutravaha Srotas Dushti in Rajayakshama (Tuberculosis): An Ayurvedic Review

Dr. Prashanti Sadashiv Ghorpade¹ and Dr. Vrinda Kaknurkar²

PG Scholar, Rognidan Evum Vikriti Vigyan Department¹

Guide and HOD, Rognidan Evum Vikriti Vigyan Department²

Sumatibhai Shah Ayurved Mahavidyalaya, Hadapsar, Pune, India

Abstract: *Rajayakshama is a significant disease entity described in classical Ayurvedic literature and is characterized by progressive depletion of body tissues, weakness and involvement of multiple systems. The disease has traditionally been discussed in relation to pulmonary tuberculosis because of similarities in clinical manifestations and pathophysiological concepts. Although respiratory manifestations receive considerable attention, classical Ayurvedic literature also describes urinary manifestations in association with Rajayakshama. In particular, Mutrakrichhra is mentioned among the serious manifestations associated with Rajayakshama.*

MutravahaSrotas represents the channels concerned with the formation, transportation and elimination of urine. Ayurveda describes specific manifestations of MutravahaSrotasDushti, including Atisrishta, Atibaddha, Prakupita, Alpa-alpa, Abhikshana, Bahala and SashoolaMutrpravritti. The classical description therefore provides a broader framework for understanding disturbances in urinary function.

The present review discusses the Ayurvedic concepts of Rajayakshama, MutravahaSrotas and MutravahaSrotasDushti, with special emphasis on their conceptual relationship with Mutrakrichhra and tuberculosis. The possible relationship between DhatuKshaya, Vegavidharana, excessive sexual activity, Mala and Mutra and urinary manifestations is also discussed. A brief modern perspective is included to understand urinary and genitourinary manifestations of tuberculosis..

Keywords: Rajayakshama, Mutravaha Srotas, Srotodushti, Mutrakrichhra, Tuberculosis, Ayurveda, Dhatu Kshaya.

I. INTRODUCTION

Ayurveda describes Rajayakshama as a severe and complex disease associated with multiple manifestations and progressive depletion of body tissues. Sushruta describes Rajayakshama as a disease that may be associated with several other diseases and is difficult to understand and manage. The terms Shosha and Kshaya are also associated with the disease because of the depletion and functional deterioration of Dhatus.

In contemporary medicine, tuberculosis is an infectious disease caused predominantly by organisms belonging to the *Mycobacterium tuberculosis* complex. Although the lungs are the most commonly affected organs, tuberculosis can involve several extrapulmonary sites.

The Ayurvedic understanding of Rajayakshama extends beyond respiratory manifestations. The classical description of the disease contains references to systemic depletion and disturbances involving different Srotas. Among these, the relationship between Rajayakshama and MutravahaSrotas is of particular interest because **Mutrakrichhra** is described as an important manifestation associated with Rajayakshama.

The concept of MutravahaSrotasDushti provides an Ayurvedic framework for understanding abnormalities in urinary quantity, frequency, flow, characteristics and painful micturition. The classical description includes seven important manifestations:



- Atisrishta
- Atibaddha
- Prakupita
- Alpa-alpa
- Abhikshana
- Bahala
- Sashoola Mutrapravritti

Understanding these manifestations in relation to Rajayakshama may provide a broader Ayurvedic perspective on urinary disturbances associated with tuberculosis.

Rajayakshama – The Ayurvedic Concept

Nirukti and Vyakhya

The classical description cited in the source material states:

“अनेकरोगानुगतो बहुरोगपुरोगमः ।

दुर्विज्ञेयः दुर्निवारः व्याधिर्महाबलः ॥”³

This description emphasizes the complex nature of Rajayakshama, its association with multiple diseases and its difficult clinical course.

The term Rajayakshama is also explained through its association with the legendary occurrence of the disease in Chandra, the king of Nakshatras. The terms **Shosha** and **Kshaya** emphasize the processes of tissue depletion and loss of normal physiological functions.

Thus, Rajayakshama can be understood as a systemic disorder in which progressive depletion of Dhatus plays an important role.

Rajayakshama and DhatuKshaya

The concept of **DhatuKshaya** is central to the Ayurvedic understanding of Rajayakshama.

The progressive depletion of Rasa, Rakta and subsequent Dhatus results in reduced strength and impaired physiological functions. The source material describes the AnulomaSamprapti of Rajayakshama in relation to inadequate nourishment of Rasa-RaktadiDhatus and discusses the formation of Mala and Mutra in this context.

Because Srotas are responsible for the transportation and movement of different substances in the body, disturbance in tissue nourishment and metabolism may influence the normal functioning of various Srotas. This provides a conceptual basis for considering MutravahaSrotas in the broader pathophysiology of Rajayakshama.

Nidana Associated with Rajayakshama

Ayurveda describes several factors associated with the development of Rajayakshama.

The source material specifically mentions **Vegavidharana**, particularly suppression of the natural urge to urinate, in relation to Rajayakshama. Excessive sexual activity is also described in the classical discussion as a Purvarupa and an important factor in certain forms of Rajayakshama.

These factors are relevant when considering MutravahaSrotas because the normal elimination of urine is dependent upon the unobstructed functioning of the urinary channels.

Srotas – Ayurvedic Concept

Srotas are the channels or pathways through which various substances are transported, transformed or eliminated within the body.

Ayurveda describes several Srotas, including:

- PranavahaSrotas
- AnnavahaSrotas



- RasavahaSrotas
- RaktavahaSrotas
- MamsavahaSrotas
- MedovahaSrotas
- AsthivahaSrotas
- MajjavahaSrotas
- ShukravahaSrotas
- MutravahaSrotas
- PurishavahaSrotas

Each Srotas has its own physiological function and characteristic manifestations when its normal functioning becomes disturbed.

Srotodushti refers to pathological alteration in the functioning or integrity of a Srotas.

Mutravaha Srotas

MutravahaSrotas is concerned with the formation, transportation and elimination of urine.

According to the classical description cited in the source material:

“अतिसृष्टमतिवद्धं प्रकुपितमल्पाल्पमभीक्ष्णं वा बहलं सशूलं मूत्रयन्तं दृष्ट्वा मूत्रवहान्यस्य स्रोतांसि प्रदुष्टानीति विद्यात्”⁴

The source material identifies the roots of MutravahaSrotas with **Basti and Vankshana** and describes the characteristic manifestations of its morbidity.

The description emphasizes that alterations in urinary quantity, urinary flow, frequency, quality and painful urination can indicate disturbance of Mutravaha Srotas.

Mutravaha Srotas Dushti Lakshana

The seven important manifestations of MutravahaSrotasDushti described in the source material are:

Sanskrit term General meaning

Atisrishta	Excessive urinary excretion
Atibaddha	Excessive obstruction/restriction of urinary flow
Prakupita	Abnormal or vitiated urinary characteristics
Alpa-alpa	Diminished urinary quantity
Abhikshana	Frequent urination
Bahala	Excessive quantity during a single act
Sashoola	Painful urination

These manifestations are directly derived from the classical description included in the source material.

Atisrishta

Atisrishta refers to excessive excretion of urine.

It indicates an increase in the quantity of urine eliminated from the body. From an Ayurvedic perspective, this represents disturbance in the normal regulation of Mutra. The manifestation should be understood as a functional disturbance rather than automatically equated with any single modern disease.



Atibaddha

Atibaddha indicates obstruction or excessive restriction in the normal flow of urine.

The source material describes this as one of the characteristic manifestations of Mutravaha Srotas Dushti. Clinically, difficulty in passing urine or interrupted urinary flow may be understood within this broader conceptual framework.

Prakupita

Prakupita refers to abnormal or vitiated characteristics of urine.

The source material discusses changes in urinary colour and odour and considers such abnormalities under Mutravaha Srotas Dushti. Thus, the Ayurvedic concept of Prakupita encompasses qualitative alterations in Mutra rather than merely changes in its quantity.

Alpa-alpa

Alpa-alpa denotes diminished or reduced urinary quantity.

Reduction in urinary output may occur in association with several physiological and pathological conditions. In the Ayurvedic framework, diminished Mutra Pravritti is considered a manifestation of disturbance in Mutravaha Srotas. The concept is particularly relevant when evaluating the overall state of Mutra formation and elimination.

Abhikshana

Abhikshana means frequent urination.

Repeated urinary frequency represents an alteration in the normal pattern of Mutra Pravritti. It is an important manifestation because frequency may occur in a variety of urinary disorders. The source material specifically includes Abhikshana among the seven manifestations of Mutravaha Srotas Dushti.

Bahala

Bahala refers to excessive quantity of urine passed during a single act of micturition.

It differs conceptually from Abhikshana: Abhikshana emphasizes **frequency**, whereas Bahala emphasizes **quantity during an individual act of urination**. This distinction illustrates the detailed manner in which Ayurveda describes abnormalities of urinary function.

Sashoola Mutrapravritti

Sashoola Mutrapravritti refers to painful urination.

Pain during micturition is closely related to the classical concept of **Mutrakrichhra**. The source material identifies Mutrakrichhra as an important manifestation associated with Rajayakshama. This provides an important conceptual connection between Rajayakshama and Mutravaha Srotas Dushti.

Mutrakrichhra in Rajayakshama

Mutrakrichhra is specifically mentioned in the classical discussion of Rajayakshama.

According to the source material, **Mutrakrichhra is described as an Asadhya Lakshana of Rajayakshama in Sushruta Samhita**. It further states that Rajayakshama associated with Mutrakrichhra has an unfavorable prognosis when appropriate rejuvenative measures are not considered. This classical association is important because it demonstrates that urinary manifestations were not viewed as completely unrelated to Rajayakshama.

The presence of Mutrakrichhra within the classical description encourages consideration of Mutravaha Srotas when interpreting the wider clinical presentation of Rajayakshama.

Relationship Between Rajayakshama and Mutravaha Srotas⁶

The relationship can be understood through several Ayurvedic concepts.



Dhatu Kshaya

Rajayakshama is strongly associated with progressive depletion of Dhatus. Disturbance of tissue nourishment can influence the normal functioning of Srotas.

Vegavidharana

Suppression of the natural urge for urination is mentioned among the factors associated with Rajayakshama in the source material. Because urinary elimination is an important natural physiological function, disturbance of this process has relevance to Mutravaha Srotas.

Excessive Sexual Activity

Excessive sexual activity is described in the classical discussion of Rajayakshama as a Purvarupa and as an important factor in Pratiloma Rajayakshama. The source material considers this factor relevant to the possibility of Mutravaha Srotas disturbance.

Mala and Mutra

The Anuloma Samprapti described in the source material discusses excessive formation of Mala and mentions Mutra along with Purisha. These concepts together provide an Ayurvedic basis for understanding the possible association between Rajayakshama and urinary disturbances.

Rajayakshama and Tuberculosis – Modern Perspective^{9,10}

Tuberculosis is caused by organisms belonging to the *Mycobacterium tuberculosis* complex. Pulmonary involvement is the most common presentation, but extrapulmonary involvement may occur.

Genitourinary tuberculosis can affect structures such as the kidneys, ureters and urinary bladder. Urinary manifestations may include frequency, dysuria, urgency and other lower urinary tract symptoms.

The modern understanding of tuberculosis therefore supports the importance of recognizing urinary manifestations in the broader clinical context of tuberculosis, while the Ayurvedic interpretation is based on the concepts of Rajayakshama, Srotas and Srotodushti.

The two frameworks should be used for conceptual correlation rather than assuming that every Ayurvedic Lakshana corresponds directly to a particular modern diagnosis.

Ayurvedic and Modern Conceptual Correlation

The following table presents a **conceptual—not diagnostic—correlation**:

Mutravaha Srotas Dushti Lakshana General clinical interpretation

Atisrishta	Increased urinary output
Atibaddha	Difficulty or obstruction in urinary flow
Prakupita	Altered urinary characteristics
Alpa-alpa	Reduced urinary output
Abhikshana	Increased urinary frequency
Bahala	Increased volume per void
Sashoola Mutrapravritti	Painful micturition

This comparison is useful for understanding terminology but should not be interpreted as a direct equivalence between Ayurvedic and modern diagnostic categories.

Clinical Importance of the Concept

The importance of Mutravaha Srotas Dushti in Rajayakshama can be considered from both Ayurvedic and modern perspectives. From the Ayurvedic perspective, the classical mention of Mutrakrichhra in Rajayakshama indicates the importance of urinary manifestations within the broader disease picture.



From the modern perspective, urinary symptoms in a person with tuberculosis may have several possible causes and may require appropriate clinical evaluation. Genitourinary tuberculosis is one possible consideration, particularly when urinary symptoms persist or occur with other suggestive features.

Therefore, the Ayurvedic concept of Mutravaha Srotas Dushti can contribute to a more comprehensive understanding of urinary manifestations while maintaining appropriate distinction between Ayurvedic pathophysiology and modern disease diagnosis.

Role of Rasayana in Rajayakshama

Rasayana occupies an important place in the Ayurvedic management of conditions associated with Dhatu Kshaya and reduced strength.

The classical material associated with Rajayakshama emphasizes Rasayana in relation to the unfavorable manifestation of Mutrakrichhra. In Ayurvedic understanding, Rasayana is associated with nourishment, strength, tissue support and promotion of longevity. The role of Rasayana in Rajayakshama should therefore be understood within the broader Ayurvedic concepts of Dhatu Poshana and Bala rather than considering it merely as treatment of an isolated urinary symptom.

In contemporary tuberculosis care, however, established anti-tuberculosis treatment remains essential for active tuberculosis. Ayurvedic approaches should be considered within an appropriate integrative and evidence-informed framework.

Importance of Mutravaha Srotas in the Overall Understanding of Rajayakshama

Rajayakshama is traditionally described as a complex disease involving multiple pathological processes. The classical emphasis on Dhatu Kshaya, systemic weakness and multiple manifestations indicates that its understanding should not be restricted to a single organ system.

Mutravaha Srotas represents one component of this wider systemic framework. The seven manifestations—Atisrishta, Atibaddha, Prakupita, Alpa-alpa, Abhikshana, Bahala and Sashoola Mutrapravritti—cover different dimensions of urinary disturbance. Among these, Sashoola Mutrapravritti has a particularly important relationship with Mutrakrichhra, which is explicitly mentioned in the classical discussion of Rajayakshama.

Thus, Mutravaha Srotas Dushti can be viewed as an important conceptual component when studying the broader systemic manifestations of Rajayakshama.

Discussion

The Ayurvedic description of Rajayakshama presents the disease as a complex disorder associated with tissue depletion and multiple manifestations. The classical references cited in the source material emphasize its difficult and systemic nature.

The concept of Mutravaha Srotas provides a structured explanation for abnormalities in urinary function. The classical verse describing Mutravaha Srotas Dushti specifically includes excessive urinary excretion, obstruction, vitiated urine, reduced quantity, frequent urination, increased quantity and painful urination.

The relationship between Mutravaha Srotas Dushti and Rajayakshama becomes particularly relevant because Mutrakrichhra is mentioned among the serious manifestations of Rajayakshama. From an Ayurvedic perspective, this relationship can be interpreted through Dhatu Kshaya, disturbance of normal physiological urges, excessive sexual activity and alterations in Mala and Mutra. These concepts provide a theoretical framework rather than a direct modern diagnostic explanation.

Modern tuberculosis can also involve organs of the genitourinary system. Therefore, the occurrence of urinary manifestations in association with tuberculosis has clinical relevance. However, urinary symptoms are nonspecific and should not automatically be interpreted as evidence of genitourinary tuberculosis.

The Ayurvedic and modern perspectives can consequently complement one another at the conceptual level while retaining their respective diagnostic and pathophysiological frameworks.



II. CONCLUSION

Rajayakshama is a complex Ayurvedic disease characterized by progressive Dhatu Kshaya and multiple systemic manifestations. The classical literature establishes an important association between Rajayakshama and Mutrakrichhra. Mutravaha Srotas is responsible for the normal handling and elimination of Mutra, and its Dushti is described through seven characteristic manifestations: **Atisrishta, Atibaddha, Prakupita, Alpa-alpa, Abhikshana, Bahala and Sashoola Mutrapravritti.**

Among these manifestations, painful urination has a particularly close conceptual relationship with Mutrakrichhra. The association of Mutrakrichhra with Rajayakshama highlights the importance of considering urinary manifestations within the broader Ayurvedic understanding of the disease. From a modern perspective, tuberculosis may involve the genitourinary system and produce urinary symptoms. Therefore, the Ayurvedic concept of Mutravaha Srotas Dushti provides a valuable framework for discussing urinary manifestations in relation to Rajayakshama.

A systematic understanding of these classical concepts may contribute to further development of Ayurvedic interpretation of Rajayakshama and its multisystem manifestations.

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