



## A CRITICAL STUDY OVER KSHATAKSHEENA BASED ON AYURVEDIC TEXT W.S.R. TO GENITOURINARY T.B. :-A LITERARY REVIEW

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### ABSTRACT

Ayurveda is a clinical science, its concepts and principles are moulded in such a way that it becomes useful in clinical parlance. According to Ayurveda, Kshatksheen is a Vyadhi which eventually converts into Rajyakshma i.e Tuberculosis (TB) in which haematuria is a prominent symptom. In modern sciences, TB is a disease caused by Mycobacterium tuberculosis. Tuberculosis remains as a vital public health problem in developing countries like India, Nepal, Myanmar, etc. Extrapulmonary tuberculosis (TB) is increasingly frequently detected in conjunction with the advent of HIV infection and an increase in organ transplantation, both of which cause immunosuppression in millions of people. Genitourinary TB (GUTB) is a type of tuberculosis that affects the urinary system, genital organ, or both. It is a disease often underestimated by urological specialist. GUTB represents 27% of extrapulmonary cases. The majority of GUTB patients experience sterile pyuria, which may be followed by microscopic hematuria. The discovery of sterile pyuria in the absence of bacterial infection serves as the basis for the diagnosis of GUTB. The first-choice medications are rifampicin, pyrazinamide, isoniazide, ethambutol and streptomycin. Physicians must become immediately aware of GUTB in order to suspect this illness in patients exhibiting unexplained urinary tract anomalies, particularly in those undergoing immunosuppression or originating from regions where tuberculosis is widespread.

**KEYWORDS :** Kshatksheena, Genitourinary TB(GUTB), Painless hematuria, Mutravaha srotas, Laksha

### INTRODUCTION

In Ayurveda, rather than disease, mainly the syndromes are described and *Kshataksheena* is also a syndrome. *Kshataksheena* is made up of two words *Kshata* and *Kshaena*. *Kshata* means injury and *Ksheena* means depletion of tissue. *Kshataksheena* is a condition with *Kshaya* (depletion of tissue) due to injury. *Ksheena* leads to *Kshata* and vice versa. It comprises a range of illnesses that cause the body's tissues to deteriorate as a result of both internal and external trauma. It shows close resemblance with *Rajyakshma*, however the cardinal cause in *Kshataksheena* is injury. Hemoptysis (symptom of pulmonary tuberculosis), haematuria (symptom of renal tuberculosis) and diarrhoea (symptom of intestinal tuberculosis) all have cardinal symptoms of tuberculosis which are described as the symptom of *Kshataksheena*. *Charak Samhita* explains this condition in the 11<sup>th</sup> chapter of *Chikitsa Sthana*.<sup>[1]</sup> *Acharya Madhav* also said *Kshataksheena* and *Rajyakshma* are almost similar. *Kshataksheena* refers to cluster of diseases like spontaneous pneumothorax and renal tuberculosis, whereas presence of haemoptysis and haematuria in a single disease suggests a pulmonary-renal syndrome (eg, Goodpasture's syndrome, Wegener's granulomatosis). *Kshataksheena* can also refer to illnesses brought on by overexertion at work or occupational dangers.

**Etiology:** A person who (beyond his own power) subjects himself to following activities:

1. Carrying heavy weight.
2. Wrestling or fighting with stronger persons.
3. Falling or jumping over uneven place or from high altitude.
4. Running a long distance or walking too fast or Sudden long and high jump.
5. One who indulges excessively in sexual intercourse.
6. Crossing a big river by swimming.
7. Straining in excess with a hard bow.
8. Who indulges in excess dry, less quantity food or limited food.

*Kshataksheena*, the frightful disease, gets manifested, as a result of the injury to the chest due to the above causative factors.<sup>[2]</sup>

### Pathogenesis and clinical features

The aforementioned causative causes cause the chest to become bruised, pierced, and cracked; the flanks and sides of the chest get suppressed; emaciation occurs; and there is trembling in the limbs. The patient gradually loses potency, strength, complexion, appetite, and digestive capacity (*Jatharagani*).

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While coughing, the patient spits out phlegm which is putrid, greyish in colour, foul smelling, and yellow and acute in large quantities along with blood. The person suffering from *Kshataksheena* becomes excessively emaciated due to further wastage of *Sukra* and *Ojas*.

However, if there is fresh injury/*Kshata*, chest pain, hematemesis (blood vomiting) and cough are specially manifested, and if there is *Kshaya* (depletion of tissue), then hematuria and stiffness of the sides of back, chest and lumbar region are specially manifested.<sup>[3]</sup>

### Prognosis :

If the signs and symptoms are mild, the *jatharagni* of the patient (power of digestion) is strong, patient has enough strength and if the disease is newly occurred, then it is *sadhya* (curable). If the disease is retained more than one year or chronic, then it is *Yapya* (palliable). If, however, all the signs and symptoms of the disease are manifested simultaneously, then such a patient should not be treated, because the condition is become *ashadhyā* (incurable).

### Management :

If there is *Navakshata*/new injury to the chest, then the patient should be given raw *Laksha* churna along with honey and milk. After the digestion of drug, he should be given food along with milk and sugar.

If there is flank pain/chest side pain or in the region of the urinary bladder, and if there is less of *Agni* (digestive power) and *Pitta*, then the patient should be given *Laksha* churna along with *Sura* (alcoholic drink).

If there is diarrhoea along with *kshataksheen*, then the patient should be given *Laksha* along with *Ativisha*, *Musta*, *Patha* and *Indrayava* in *Churna* form. If the patient has strong *agni* or power of digestion, then he should be given milk cooked with *Laksha*, bee's wax, and ten drugs belonging to *Jivaniyagana*, sugar and *Vanshalochana* and wheat powder.

The patient should take milk boiled with *Chandana*, *Bisagranthi*, *Padmakaesara* and *Ikshubalika* along with honey for healing the trauma/injury. If there is fever and burning sensation in the body, then the patient should take sugar, honey and *Saktu* (roasted corn-flour) mixed with milk. Alternatively, such a patient should take barley powder cooked along with milk and honey is added. If the patient is

suffering from cough and pain in the sides of the chest as well as bones, then he should take linctus prepared of the powder *Madhuka* (flower), *Madhu*, *Draksha*, *Vanshalochana*, *Pippali* and *Bala* mixed with *ghee* and honey.<sup>[4]</sup>

In Modern sciences, Theophilus ponetus (1628-89) discovered Tubercule bacillus. Robert Koch correlates the presence of Tubercule bacillus in the lungs which leads to T.B.<sup>[5]</sup>

There is considerable evidence that failure to control or resolve infectious disease often results from an inappropriate rather than insufficient immune response. A good example is TB. In this condition, Immunity of T-cell is decreased; the T helper-cell is unable to produce sufficient interferon-gamma to activate macrophage, which can kill tubercle bacteria. Intervention in this situation could be aimed at expanding protective TH1-cells or alternatively enhancing the key protective response macrophage activation by IFN-g.<sup>[6]</sup>

Genitourinary tuberculosis (GUTB) makes up to 27% of all extra pulmonary TB (EPTB). Usually, GUTB occurs by hematogenous spread of bacilli from the primary disease sites such as the lung and reactivation of Latent Mycobacterium Tuberculi Infection (LTBI) due to immunosuppression. The primary organ affected by GUTB is kidney, where the disease progresses slowly. GUTB is mostly asymptomatic but it can be highly destructive to the kidney. GUTB may even lead to renal dysfunction and renal failure. The disease generally manifests as a secondary infection in the ureter and bladder following kidneys, with extensive calcification of affected organs. Patients present with pyuria having white blood cells with or without microscopic hematuria. Constitutional symptoms, including fever, weight loss, and sweating, are observed along with urologic symptoms, such as flank pain, pyuria, painless hematuria, and even urinary incontinence. Usually there is no improvement after treatment with antibiotics for a week. Genital TB can affect many male genital tract organs, including the prostate, seminal vesicles, vas deferens, epididymis, Cowper glands, penis, and testicles. Usually it shows tender scrotal swelling, nodular/uneven prostate, perineal sinus or fistula, and genital ulcer leading to male infertility. GUTB of the female mostly affects the fallopian tubes. However, ovaries, endometrium, and peritoneum can also be affected, and symptoms are mistaken for menstrual irregularity, abdominal pain, pelvic inflammatory disease, and even infertility.<sup>[7]</sup> Awareness of renal TB is necessary for suspecting the disease in patients by physicians having urinary tract abnormalities with unknown cause, mainly occur in patients with immunosuppression and those coming from TB prone areas.<sup>[8]</sup>

#### Correlation Between Symptoms Of *Kshatsheena* And Gutb

SYMPTOMS OF <i>KSHATKSHEENA</i> <sup>[9]</sup>	SYMPTOMS OF GUTB <sup>[10]</sup>
<i>Saraktamutratawam</i>	Hematuria
<i>Parshwashool</i>	Flank pain
<i>Jwara</i>	Fever
<i>Aruchi</i>	Loss of appetite
<i>Karshya</i>	Emaciation
<i>Atiswedan</i>	Excessive sweating
<i>Mutrakriccha</i>	Urinary incontinence
<i>Atisaar</i>	Diarrhoea
<i>Bandhyatwa</i>	Infertility
<i>Udara-shool</i>	Abdominal pain
<i>Arbuda</i>	Cancer (genital)

#### DISCUSSION

*Kshatsheena* is a disease discussed by Ayurvedic *Acharyas* very elaborately. Various *Nidana* mentioned under this chapter were explained in details in this paper. Here hematuria in *Kshatsheena* can be explained by two different pathological process. Almost all *Nidana* of *Kshataksheena* can be categorized in vigorous exercise, which can directly injured kidney, ureter, bladder or urethra and result will be hematuria. But in present study, as we mentioned earlier also *Kshataksheena* can lead to *Rajyakshama* which is considered as T.B. Symptoms of *Kshataksheena* like *Jwar*, *Karshya*, *Atiswedan*, *Parshawa-Prishthakatigraha*, *Saraktamutratawam*, *Mutrakriksha*, *Atishara*, *Aruchi*, *Udarshool*, etc are closely related to Genitourinary T.B. and further spreads to genitourinary system. After studying various references in ancient ayurvedic literature, we can say that *Kshataksheena* directly leads to GUTB. As we know GUTB is 2<sup>nd</sup> most common extrapulmonary T.B. which usually occurs because of reactivation of old dormant T.B.

#### CONCLUSION

GUTB is 2<sup>nd</sup> most common extrapulmonary manifestation of T.B. Pathology of *Kshataksheena* however can be studied in various way but after present studied it saw that ancient ayurvedic scholars were aware about extrapulmonary spreads of TB. *Kshataksheena* in later stage converts into *Rajyakshama* (T.B) and on the basis of symptoms one can say that *Kshataksheena* further progresses into GUTB.

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