

HYDROURETRONEPHROSIS: A COMPLICATION OF *MUTRASHMARI*: A CASE STUDY.

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ABSTRACT

Kidney stones are one of the most common problems regarding Renal disorders. Inappropriate dietary habits and insufficient water intake lead to the formation of Renal stone. These stones obstruct either the pelvis region or ureter region causing hydronephrosis and hydroureter respectively. It can be presented independently or together. Both conditions should be promptly diagnosed and treated to prevent severe renal dysfunction. Cystoscopy guided ureteral stent placement or fluoroscopy guided percutaneous nephrostomy tube are the modern treatment strategies for hydronephrosis or hydroureteronephrosis. In *Ayurveda* symptoms of hydroureteronephrosis can be correlated as the mixed symptoms of *vat kundalini* and *vata Basti* or *Mutrasteeta* in which there is obstruction in *Mutravaha srotas* leading to impeded urine flow ,finally causing retro peritoneal pain ,heaviness ,and retention of urine and stool. According to *Ayurveda* Hydroureteronephrosis is seen as a complication under *Ashmari Prakaran*. Here the presented case is about a case of mild hydroureteronephrosis ,which is reversed and gets back to normal function within 14 days through systemized administration of *polyherbal* drug.

Key words: *Mutrashmari, Hydroureteronephrosis, vata kundalini, Mutraghata*

INTRODUCTION

Kidney stones are one of the most common urological problems. Around 12% of men and 60% of women are reported to be prone to urinary stones¹.Hydronephrosis or hydroureteronephrosis is the dilatation of renal pelvis and /or calyces or in the ureter. Hydronephrosis is classified according to the level of and the site of obstruction². Obstructive lesions of the urinary tract increase susceptibility to infections and to the stone formation, and unrelieved obstructions almost always leads to permanent renal atrophy, termed hydro-nephrosis or obstructive uropathy³.Ayurveda describes Renal pathologies broadly under *Ashmari* ,*Mutrakruchha* and *Mutraghata* .*Mutrakruchha* is a generalised term for painful micturation and the *Mutraghat* is defined as the impedance in urine flow due to any obstruction in the urinary pathway. *Acharya Sushruta* ,*Charaka* and *Madhava* Classified *Mutraghat* in 8 different types according to their pathology. There is no such point-to-point similar pathogenesis of any particular disease in *Mutraghat*, which can be directly correlated as hydroureteronephrosis. but can be explained as the mixture of 2-3 pathology of *Mutraghat* in *Ayurveda*. As in *Ayurveda mutrashmari* (urinary stones) are common ailments under in renal disorders. It is said to be one of the eight most troublesome diseases (*Maharogas*)⁴ Incidence of stones has increased in industrialized nations largely attributable to changes in dietary patterns, especially, increase in protein and salt intake.⁵Morbidity related to it depends on the position, size and site of stone locations. Generally, Impediment to urine flow by ureteral stones usually occurs at three sites⁶

- the ureteropelvic junction
- the crossing of the ureter over the iliac artery
- the ureter vesicular junction.

The first presenting symptoms of HN are urological flank pain ,lower urinary tract symptoms, blood in urine ,palpitations, fever ,fatigue ,nausea, and weight loss⁷ .Depending on the level of urinary block ,the

dilation may affect the bladder first ,or the ureter and then the kidney⁸ .The kidney may be slightly to massively enlarged, depending on the degree and the duration of obstruction⁹.In *Ayurveda*, the concept of renal Calculi pathogenesis is indicated as when the *kapha dosha* is vitiated because of the etiological factors, *kapha* reaches to the urinary system and ,with the help of *vata* and *pitta doshas* ,dries up and forms the calculus¹⁰ . In *Ayurveda vata kundalini* described as “*Gatisadvrta sa mutrasthanmargyo mutrasya viguno mutram vihanti stambhgauravveshtaney teevramutra.....*”¹⁰ means Due to obstruction in the flow of urine ,the virulent vayu moves upwards and that Vayu fills the urinary tract and urinary tract (like broken),*Vya viddha* (like pierced by a thorn),urine moving like a coil .It obstructs and causes stiffness in those places ,tearing pain ,heaviness ,cramping, acute pain, obstruction of urine and stool .*Vata Basti* is described as *Mutram dharyato Bastau Vayuh kruddho vidharnat. mutrarodhaartikandurbhi vata Basti sa Uchyate*¹¹ . means patients having practice of stopping the flow of urine, in the region of Vasti, Vitiated air produces Vata vasti disease. It has the symptoms like Obstruction of Urine, Hard stool, Pain, *Kandu* (Itching). Thus, it can be said that *vata kundalini* and *vata Basti* can be correlated to symptoms raised by hydroureteronephrosis.

Case report

A patient of age 34/Male came OPD of Kayachikitsa, Govt Ayurved College Patna having chief complaint of severe, acute left flank pain with associated nausea and vomiting for past 45 days. He has consulted local physician for his problems. Gradually the symptoms are getting severe. His Radiological examinations (USG) revealed grade 1 fatty liver with mild splenomegaly, left hydroureteronephrosis with a calculus measuring 5.2 mm in left vesicoureteric junction. Vitals were stable.

General examination

Table no :-01

Entities	Findings
Appetite	Low
Bowel	Not clear
Blood pressure	110/80 mmHg
Respiratory rate	22/min
Temperature	98
Pallor	Mild
Icterus	Absent
Lymphadenopathy	Not palpable

Dashvidha pareeksha

Table no:-02

Prakriti	Vatapittaja
Vikruti	Vatakaphaja
Saar	Twaka Saar
Samhanan	Pravar
Pramana	Madhyam
Saatmya	Madhyam
Satva	Madhyam
Aahar pareeksha	Madhyam
Vyayam pareeksha	Madhyam

Differential diagnosis

Table no : - 03

Disease	Characteristics /Diagnosis	Remarkable point
Intestinal obstruction	Severe colicky pain with suggestive history	Not associated with haematuria
Acute appendicitis	Physical examination	CT
Disk protrusion	Lower back ache	Diagnosis through CT/MRI
Renal artery dissection		
Acute nephritis	Mimics the retroperitoneal	
Loin pain haematuria syndrome	pain as in stone	

Materials and Methods

Sources of data: - Diagnosed Patient having symptom of *Hydroureteronephrosis* is selected from the OPD of kayachikitsa Department, Govt Ayurved College, Patna with OPD registration no 2884.

Study design: -Single case study.

Consent was obtained from patient prior to the treatment. Patient was assessed on subjective and objective parameters before treatment and on every follow up.

Treatment protocol: According the USG reports, the patient was diagnosed as *Hydroureteronephrosis*). So, the line of treatment for *Ashmari and Mutraghat* was applied according to *Charaka Samhita*.

Treatment procedure

Samanya Mutraghata chikitsa

Sushrut Samhita mentions in *Uttarasthan* the generalised treatment protocol for *Mutraghat* or obstructive pathology as *Kashyakalkasarpisapi bhaksyana Lehana payansi cha / Kshamadhyasavaswedan vastich uttarsangyitaan*¹².

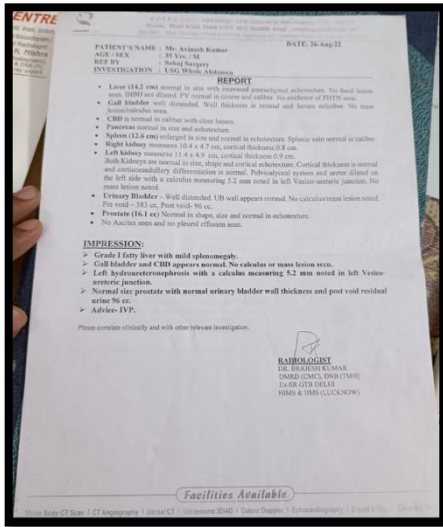
Means Physicians should use *kashay /kawath, kalka, ghee*, different types of favourable foods, *avaleha* and milk, *Kshar, madhya*, *swedana* like *upnaha ,Uttar Basti* ,mild purgative and *Ashmari nashaka aushadhis* are important in treatment for the obstructive uropathy in *Ayurveda*.

Internal medication for 15 days

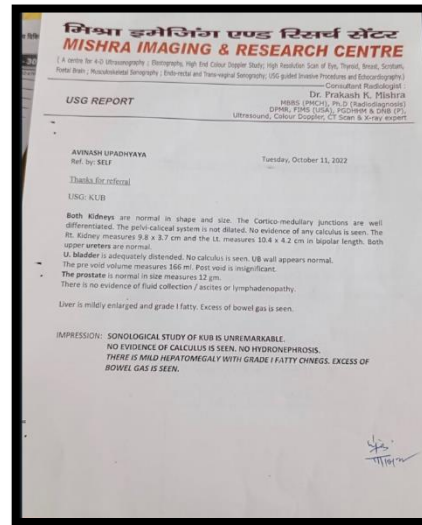
1. Divya Vrikkadoshhar kwath- 5gm
Varunadi kawath- 5gm

Twice with equal quantity of Lukewarm water

Results



Before treatment.



After treatment

DISCUSSION

Gokshuradi guggulu¹³(combined Ayurvedic preparation) is *Rasayana* for *Mutravaha Srotas* and it has also *Lekhana* (scraping) effect because of *Guggulu*. *Varunadi kawath*. *Varunadi kvath*¹⁴also helpful to relieve the *Kapha* and *Vata doshas* leading to the recovery of obstructive pathology. *Divya Vrukka dosha-hara kawath*¹⁵is a *polyherbal ayurvedic* medicine that is primarily used for the treatment of Kidney Stones, Kidney Disease, Urinary Tract Infection. The key ingredients of Patanjali Divya Vrikkadoshhar Kwath are Gokshura, Apamarga, Amaltas, Bala, Kasani, Giloy, Kantakari, Punarnava, Agnimantha, Munja, Kusha, Shatavari, Varuna, Makoy, Kutki, Dhamasa, Palash, Barley, Peepal, Pashanbhed. It strengthens emission system. It is used to dissolve stones deposited in kidney or urinary bladder. *Stonex Capsule*¹⁶ is a unique *herbal* formulation used to offer a single solution for different types of renal calculi, other urinary tract calculi, and urinary disorders. It mainly contains *Kramuka Kshara*, *Gokshura Kshara*, *Pashanabheda*, and *Shatavari* which help dissolve kidney stones and expel

the gravel through urine. *Pashanabheda* acts as a strong antilithiatic or anti calcification agent. *Kramuka* is an antimicrobial agent that controls the symptoms of urinary tract infections. *Gokshura* significantly increases oxalate excretion in the urine, thus it helps in the excretion of already present urinary tract stones and prevents further calculus formation. *Shatavari* reduces the elevated level of calcium, oxalate, and phosphate ions in urine which are responsible for calculus formation and increases the magnesium concentration in the urine which is considered to show a significant inhibitory effect on stone formation.

CONCLUSION

As per the sign and symptoms, it can be concluded that the hydroureteronephrosis can be correlated as the complications of *mutrashmari* in *Ayurveda* and its symptoms are somehow similar to *vata kundalini* and *vata Basti*. Following *Pathya annapana* and internal use of polyherbal medications like *Vrikkadoshhar kawath*, *Varunadi kawath*, *Gokshuradi guggulu* and *tablet Stonex* could possibly alleviate the symptoms and flush out the small to medium size renal calculus.

No adverse reaction was observed during course of treatment, proving the formulation safe and effective. However large-scale clinical studies would be more confirmatory. It is proposed that the therapy may be accepted as effective, economic and non-invasive.

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