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Case Study

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SUCCESSFUL AYURVEDIC MANAGEMENT OF CHRONIC KIDNEY DISEASE STAGE 5 (ESRD) WITH CHRONIC CYSTITIS DUE TO SEVERE STRICTURE URETHRA WITH SEVERE ANEMIA-A CASE REPORT

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ABSTRACT

Introduction: Stricture urethra in females is less common than that in males. The most common cause is idiopathic, iatrogenic i.e post instrumentation and post operative, inflammatory and traumatic. The complications are Hydroureteronephrosis, Cystitis, Repeated Urinary tract infection, and finally kidney failure. **Case Report:** This 53 year old female experienced difficulty in passing urine. She was investigated and found to have extremely severe Stricture urethra due to stenosis of Ext urethral meatus, for which she was put on supra-pubic catheter with urobag. She developed Hydroureteronephrosis with chronic cystitis with severe Anemia. Her Serum Creatinine and Blood urea were high, making her land in to CKD stage 5 (ESRD) with eGFR 9 ml/min/1.73m^2. Such a case was referred to Ayurved and was successfully treated by *Abhyantar chikitsa*, *Panchkarma* including *Uttarbasti*. One year of Ayurvedic treatment improved her CKD status to stage 4 (eGFR 17 ml/min/1.73m^2). During Corona pandemic she could not be given course of Uttarbasti; later on she was given a course of 25 *Uttarbasti* in a span of 6 months, that made her stricture got cured. She could pass urine naturally. Her supra-pubic catheter with urobag was removed which she carried for nearly 30 months. She is totally symptom free and leading normal life with full quality of life. **Conclusion:** Such a complicated case was successfully managed by Ayurvedic line of treatment. Ayurved has ability to treat incurable CKD-5 (End Stage Renal Disease), and severe Stricture urethra, which was confirmed again.

KEYWORDS: Stricture urethra, *Mutramarg Sankoch*, CKD stage 5, ESRD, Ayurvedic management, Uttarbasti.

INTRODUCTION

The female urethra is a relatively simple, short tubular structure compared to male urethra, which has sole function of conducting urine from the bladder to the outside of the body. Being a short structure, it is less prone to intrinsic pathology than the male urethra.[1]

Urethral stricture involves scarring of the urethra, which restricts the flow of urine from the bladder and can cause a variety of medical complications in the urinary tract, including Hydroureteronephrosis, Cystitis, repeated Urinary Tract Infection, recurrent periurethral abscesses and finally may lead to Chronic Renal Failure.[2] Clinical features of Stricture urethra are H/o Straining while passing urine, retention of urine, suprapubic pain and swelling due to distended bladder.[3] Causes of Urethral stricture are mainly iatrogenic (Post instrumentation or operative procedures like Trans-urethral surgery, may be infective (Sexually transmitted infections), following trauma causing rupture urethra or may be idiopathic. There are multiple causes for these strictures in women. In a systematic review of Female Urethral Stricture, idiopathic cause was the most common, accounting for 51.3% of cases, while iatrogenic accounted for 32.8% of cases. 8% were related to infection and inflammation and 6.6% related to trauma.[4] Following investigations are carried out to diagnose Urethral stricture: Urine analysis, Urinary flow test, Pelvic ultrasound, Pelvic MRI, Retrograde urethrogram and Cystoscopy. Conventional/ Modern Medicine treats Urethral stricture by Dilation, Urethroplasty, Endoscopic urethrotomy or by Permanent suprapubic catheterisation.[5]

Prevalence of Urethral stricture is 229-627 per 100000 males. Prevalence in female is very much less but not exactly known. Urethral stricture disease as such is common in the elderly population with a marked increase after 55 years of age.[6]

CASE REPORT

This 53 year old female farmer from rural area of Nanded district, started difficulty in passing urine. She was referred by a local doctor to Urologist in Nanded. She reported to a reputed hospital in Nanded on 3 March 2022. She was thoroughly investigated. Her investigation findings were as follows: **Hb-6gm/dl, Serum Creatinine-5.97 mg/dl, Blood sugar-fasting-82.61 mg/dl; P.P.-141.13 mg/dl. Other values-Within normal range.**

Ultrasound Abdomen and pelvis report showed following findings.

"There is evidence of moderate to severe **Hydronephrotic changes seen on both sides, more on Rt. side with cortical thinning in Rt. kidney.**

Size: Rt. kidney-94 x 55 mm; Lt. kidney: 94 x 53 mm

Ureters: **B/L Ureters are grossly dilated in visualized region up to VUJ.**

E/o Diffuse wall thickening (8-9 mm) seen with trabaculations & sacculations noted s/o changes of **Chronic cystitis.**

Post void urine: Significant 512 cc. S/o Changes of Obstructive pathology".

Urine exam:- Acidic urine. Albumin +; Pus cells-4-6/HPF, Epithelial cells-1-2/HPF

She was diagnosed as **Bilateral hydronephrosis with hydroureter; ? Neurogenic bladder with Severe Urethral stenosis with Severe anemia.**

Urologist tried to pass thin guide wire but failed. His remarks were," "Ext. urethral meatus totally stenosed. Not admitting guide wireÞ. Therefore passing cystoscope and doing any surgical procedure was out of question. She was put a permanent Foley's suprapubic catheter in the urinary bladder and the other end at the urobag attached to abdomen, which she had to evacuate twice daily. Her Foley's catheter was replaced every fortnightly. She was apprised that she had to live with this lifetime arrangement.

She was given 2 units of blood transfusion along with I/V Inj. Orofer, that increased her Hb from 6 g/dL to 8.5 g/dL. She was asked to start dialysis for which she was not ready. One of doctor friends of author referred her to Ayurved. She reported to the author on 20.6.2020 at Nanded.

Pt C/o Fever with chills- 10 days,

Oedema over feet-15 days

Low urine output- 400 ml/24 hours-15 days

Prakruti-Vataj-Pittaj;

Mansik Prakruti- Rajas-Tamas

Hetu- Ushapan, Bhojanpoorva jalpan, Vidahi-Abhishyandi, Tobacco chewing-20 years.

Past history: No H/o any operative procedure or surgery. H/o 2 abortions, 2 live births. Last delivery -18 years back. Menopause 18 years back.

Personal history-Tobacco addict, Appetite-Low, Constipated; Sleep-disturbed

Afebrile, Pulse-80/min, Resp. rate-20/min; B.P.-136/82 mm Hg

Pedal oedema ++

RS:- NAD

CVS:- S_1 S_2 normal. Nothing abnormal detected

P/A- Liver, Spleen not palpable. No ascites, No tenderness in loin region.

Urine RE: Albumin +++, Pus cells-Abundant, Epithelial cells-4-5/HPF

Serum Creatinine 5.4 mg/dL, (eGFR-9 ml/ min/ 1.73 m^2)

Blood urea-69 mg/ dL

Δ CKD-5 (ESRD) with Chronic cystitis with Moderate anemia due to severe stricture urethra- on suprapubic catheter

Treatment: Patient had developed ESRD with Chronic cystitis, therefore author decided to concentrate on this aspect as a priority. Those days were of Corona pandemic, and decided to postpone Uttarbasti treatment for some period. She was given *Deepan-Pachan* by administering Sitopaladi and Avipattikar churna. Her urinary tract infection and Chronic cystitis was treated by administering Tab Sookshma Triphala and Tab Gandhak rasayan for a period of 15 days and repeated after a gap of 7 days for further 15 days. This minimised the risk of hepatic toxicity of Gandhak rasayan if any. Along with that we advised to take Gokshuradi guggul + Chandraprabhavati + Chandanasav 2 TSF BD, that not only corrected the urinary infection but maintained the kidney function to the extent that dialysis was totally prevented. She had developed Hydronephrosis and Hydroureter, which was reduced by administering Punarnavadi kashay + Brihatyadi kashay + Liq. NEERI-KFT 2TSF BD. During this period Gokshuradi guggul + Chandraprabhavati was continued. Her constipation was treated by Tab Gandharv Haritaki one tablet at bedtime.

Clinical response to Ayurvedic treatment: Patient responded to treatment very well within 15 days when her oliguria improved to more than one litre/ 24 hours. Oedema over feet disappeared. Her appetite was improved. Bowel movements became normal. Her urine became free of pus cells. Her Serum Creatinine level was settled around 3 mg/dL and Blood urea was around 50 mg/dL. Her eGFR was improved to 17 ml/min/ 1.73 m^2 thereby improved her kidney function to CKD stage 4.

At this stage, author decided to address her severe Urethral stricture issue by starting *Uttar basti* treatment from Jan 2022. But the first attempt to introduce No.5 feeding tube was failed due to severe stenosis of external urethral meatus. A pichue/ swab of Sahachar oil was kept overnight in vulva. She was advised to keep pichue/ swab of Sahachar oil every night for next 3 days in vulva. On 4th day she was called again and was administered partial *Uttarbasti* by nozzle of 10 ml syringe. That attempt was successful. She was called again after 4 days; she was tried to introduce 20 ml

Sahachar tail by No.5 feeding tube by properly lubricating it, in to the urethra and this attempt was totally successful. After such few episodes we increased size of the feeding tube gradually to No. 10. Such 25 episodes of Uttarbasti were carried out. After 4-5 of episodes of Uttarbasti, patient had urged to pass urine. She was asked to close the urobag that enabled natural passage of urine. Now the quantity of urine increased from oliguria to 2 litres / 24 hours. There was some residual urine accumulated in bladder, that's why she had frequency of urine 3-4 times during night. It was observed that whenever the urobag and suprapubic catheter was changed, the patient could not pass urine by natural way. It was probably due to disturbance in the bladder by changing the catheter, causing blockage of urethra by the salts accumulated in the residual urine. After administering Uttarbasti by Sahachar +Kashisadi + Kshar tail by feeding tube, the urethral passage used to open up and patient used to pass urine by natural way. In this way, earlier we administered Uttarbasti with an interval of 4 days and later with interval of 15 days. We administered minimum 25 Uttarbasti with the effect that obstruction due to urethral stenosis was removed completely. On 17th August 2022, her suprapubic Foley's catheter was removed and the open wound was allowed to heal naturally with the dressing by Jatyadi tail. The wound healed completely within 8 days and patient continued to pass urine by natural way. Till date, patient used to pass urine naturally without any difficulty. Thus there was end of agony of patient which she experienced for nearly 30 months.

Figure 1: Patient at the end of the treatment.

DISCUSSION

Patient had menopause at the age of 35 years after the last delivery which happened 18 years ago. This was abnormal. It shows that she had Rakta dusti since 18 years and that might be the cause of stricture urethra as per Ayurvedic point of view; which we otherwise label as idiopathic.

Normally Urethral stricture is treated by repeated Dilatation or Urethroplasty under conventional Medicine. Sushruta was the first surgeon in the world who was pioneer to devise dilatation as a surgical procedure used to treat Urethral stricture.[7] In the present case Ext. urethral meatus was found to be totally stenosed, not even admitting the thin guide wire. Therefore passing cystoscope and doing any surgical procedure was out of question. As a last resort, patient was put on a permanent Foley's suprapubic catheter in the urinary bladder; to be replaced fortnightly and this arrangement was supposed to be for lifetime. Here Ayurved played a crucial role and cured the Urethral stricture/ stenosis and resolved the issue permanently forever.

Before addressing the issue of Urethral stricture, we addressed the ESRD as a top priority. The eGFR value was 9 ml/min/1.73m^2. Patient had no alternative immediately rather than to undergo dialysis. Patient was reluctant to undergo dialysis. Author had earlier conducted one clinical trial on CKD patients and maintained ESRD cases without dialysis.[8] Author decided to maintain the patient purely on Ayurvedic treatment, without resorting to dialysis. Due to Ayurvedic treatment as mentioned earlier, patient's kidney function improved from eGFR value 9 ml/min/1.73m^2 to 17 ml/min/1.73m^2 (MDRD). Thus from CKD stage 5 (ESRD) patient improved her kidney function to CKD stage 4 with eGFR value 17 ml/min/1.73m^2(MDRD). This is not experienced in Modern medicine and it is said that once ESRD set in, it was irreversible. This myth was removed by Ayurved and established that kidney function could be restored and ESRD patients could be maintained conservatively on Ayurvedic treatment without resorting to dialysis.

Acharya Sushrut mentioned Urethral stricture as Vataj Mutrakrichha and advised the treatment of choice as Uttarbasti in the following shloka.[9]

Dadyaduttarbastim Cha Vatakrichhopshantye I Su. Uttartantra 59/19

Acharya Charak explained the treatment of Mutrakrichha in detail by Snehan, Upanah, Niruh basti, Uttarbasti by syringe like equipment in the following Shloka[10]

Abhyanjan Sneha Niruhvasti Snehoupanahottarvastisekan I
Sthiradwibhi: Vatharrescha Sidhan Dadyad Rasanshanil Mutrakrichha II
Cha. Chik. 26/45

Acharya Charak further mentioned that all diseases of Basti/ Urinary bladder may be treated by Basti or Uttarbasti in the following shloka[11]

Doshadhikyamvekshyetan Mutrakrichhahararjayet II
BastimUttarvastim cha Sarveshameva dapyet I Cha. Siddhi. 9/49-50

Acharya Charak further mentioned the position of the patient, similar to present lithotomy position, while administering Uttarbasti in the following shloka.[12]

Uttanaya: Shayanaya: Samyak Sankochya Sakthini II Cha. Siddhi. 9/67

Vaidya Amilkathawar conducted one clinical trial on subjects with Stricture Urethra and concluded and reconfirmed that the treatment of Uttarbasti as mentioned by Acharya Sushrut and Acharya Charak is very effective in treating cases of Stricture urethra.[13]

We administered Uttarbasti that included Sahachar tail, Kashisadi tail and Kshar tail. It is well known that Sahachar tail acts very well in *vikaras* of *Vata* and *Mutravahstrotas*/ Urinary system. Sesame oil is the base of Kashisadi tail which contained Chitrak (*Plumbago zeylanica*), Haridra (*Curcuma longa*), Kushta (*Saussurea lappa*), Arka patra (*Calotropis gigantea*), Pippali (*Piper longum*), Sunthi (*Zingiber officinale*), Kanher (*Nerium indicum),* Manasheela (Realgar), Vidang (*Embelia ribes*), Gomutra (Cow-urine), and Saindhav (Rock salt). The combined use of them facilitated healing of the scar tissue and removed the stenosis. Kshar tail contained Muli kshar, Java (*Hordeum vulgare*), Hing (*Ferula assa-foetida*), Devdaru (*Cedrus devadara*), Kut and Pippalimool (*Piper longum*). Kshar tail is very effective in controlling urinary tract infection. Musta + Triphala + Gokshur administered by Uttarbasti played very important role in treating Cystitis.

Thus sustained and meticulous efforts of Ayurvedic management for more than 2 years improved kidney function, removed severe external urethral stenosis, and made it possible for the patient to pass urine by natural way.

CONCLUSION

Ayurved has inherent strength and ability to treat incurable cases like ESRD and severe Urethral stricture/ Stenosis of External urethral meatus.

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