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Case Study

Efficacy of Urethral dilatation with Uttarbasti in the management of Recurrent Urethral Stricture-A Single Case Study

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A B S T R A C T

Urethral stricture disease is the common problem occurred in the patients after chronic urinary tract infection, urethral injury or post-surgical interventions performed through per urethra. In Ayurvedic literature urethral stricture may be correlated as mutrotsanga mentioned in Sushruta Samhita. There are advance surgeries available as the science advances with technology various surgeries like Urethroplasty, Visual Internal Urethrotomy, and Dilatation of urethra. The way to overcome this problem is surgery i.e. urethroplasty. But the recurrence rate is high enough to think the alternative. In this case study, 40 years old Male patient suffering from recurrent urethral stricture was came to Shalya Tantra OPD. Patient also undergone repeated urethral dilatations two times but not relieved. So after clinical examination and investigations the case diagnosed as urethral stricture and treated with Ayurvedic Para-surgical procedure i.e uttarbasti to avoid recurrent urethral stricture. In Ayurvedic literature Uttarbasti is the procedure in which some medicinal preparations are introduced per urethra. (As per reference given in sushruta samhita) Uttarbasti was done at 3 days interval for 4 weeks. In this particular study urethral dilatation done by urethral dilatators after that Uttarbasti has been given. After 3rd sitting patient got 70% relief. Thus we can conclude that uttarbasti can be considered as a golden choice of treatment for urethral stricture in Ayurved

Keywords: Utethral Stricture, Mutramarga sankoch, Urethral Dilatation, Uttarbasti

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INTRODUCTION

Urethral stricture disease remains a common cause of morbidity among men. The urethral stricture is the narrowing of the lumen of the urethra caused by acute injury, inflammatory condition and iatrogenic surgical interventions. Urethral stricture disease is still a prevalent problem with an estimated incidence of 0.6% in susceptible populations[1]These conditions greatly affect the health and quality of life of patients. This affects mostly male adults of 18-70 years of age having symptoms like incomplete void, post void dribbling, progressive arrow stream, increased frequency and urethral discharge. The treatment options for urethral stricture vary in their success rates. Urethral dilation and urethrotomy are the most commonly performed procedures but carry the lowest chance for success (0-9%). Urethroplasty has a much higher chance of success (85-90%) but its maj or complication is sexual dysfunction.[2] As per Ayurvedic anatomy (Sharir) Mutravaha Srotas includes Vrukka (kidney), Gavini (ureter), Mutrashaya (urinary bladder) and Mutramarga (urethra).[3] Mutamarga sankoch (urethral stricture) is a commonest disorder of urinary system. In Ayurvedic text it is explained under mutraghat. Acharya Charaka explain as mutrakrichcha of 8 types[4] and Acharya Sushruta explain as mutraghat of 12 types.[5] Mutra Margsan koch is not mentioned as separate entity but the symptoms have similarity with Mutrotsanga.[6] In mutrotsanga the pathology(samprapti) must be in urinary bladder or in urethra anywhere from bladder to tip of penis. In the management of treatment of Mutramarga sankoch Acharya Sushruta mentioned some medical as well as parasurgical procedure like uttarbasti. Symptoms of Mutramarga Sankocha can be correlated with stricture

urethra. Urethral stricture means Pathologically it becomes narrowed by a fibrotic tissue, which obstructs flow of urine. The etiological factors may be Urinary tract infection, injury or post-surgery.[7]Uttarbasti is an important procedure for the genito-urinary disorders of both males and females. It is mentioned in the various Ayurvedic classics.[8] The therapy involves instillation of a specific siddha oil, ghrita or decoction into the urinary bladder or uterus. In this procedure medicated oil or ghrita is instilled in female per vagina or in the bladder in males and females per urethra.[9] All aseptic precautions are followed by process of Autoclaving Utterbasti medicated oil or ghrita is kept in a bowl and that bowl is kept in Autoclave drum for its complete sterilization. medicated oil became complete sterile with this process. This Utterbasti therapy procedure takes about 20-25 minutes. It is carried out three consecutive days or as required or as per advancement of the disease. Previous studies also suggest encourage results of uttarbasti with different medicated oil. [10-11]

CASE REPORT

A male patient of 47 years old having complains of difficulty in micturition since last 05 years. He was suffering from the symptoms like yellowish colour of urine, strangury of urine, no pain, flow of urine is very poor, frequent micturition and occasionally burning micturition. At that time he was treated by urologists with antibiotic therapy. Patient got relief for some days but again having severe symptoms and retention of urine. Then he was catheterized with Foley's rubber urethral catheter. That time patient was diagnosed by urologist as Urethral stricture. Urologist suggested him for urethral dilatation as non-invasive urosurgery. Patient was decided the same and undergone for urethral dilatation procedure. Later on patient discharge from hospital but he suffers from difficult micturition, poor stream and frequent micturition after 6 months of urethral dilatation procedure. He was diagnosed with recurrent urethral stricture. Even after these urethral dilatation patient has no significant permanent improvement in the flow of urine. Patient was advised to manual self-urethral dilation, flow improvement for some time after dilation but it again reverse. Patient having no history of repeated catheterization, Diabetes Mellitus, Hypertension.The uro-flowmetary is useful for the assessment of patient by Qmax value. The uroflowmetary shows Qmax 7.5 ml/sec and USG shows post void residual volume 80ml before starting treatment. The RGU (Retro-grade urethorgraphy) showed Anterior urethra-focal circumferential stricture of bulbar urethra (Fig-1) The treatment started with Urethral dilatation followed by Tila taila uttarbasti . The treatment was continued up to 4 weeks between 3 days interval.

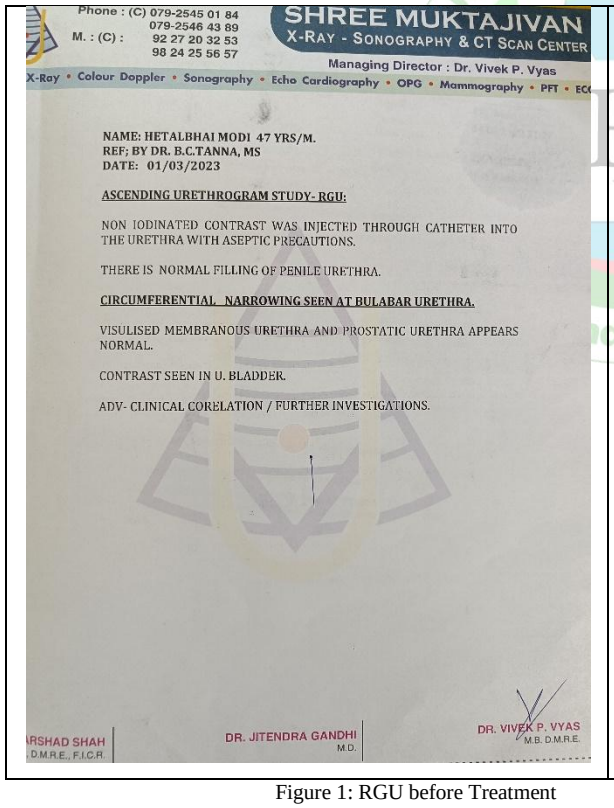

Figure 1: RGU before Treatment

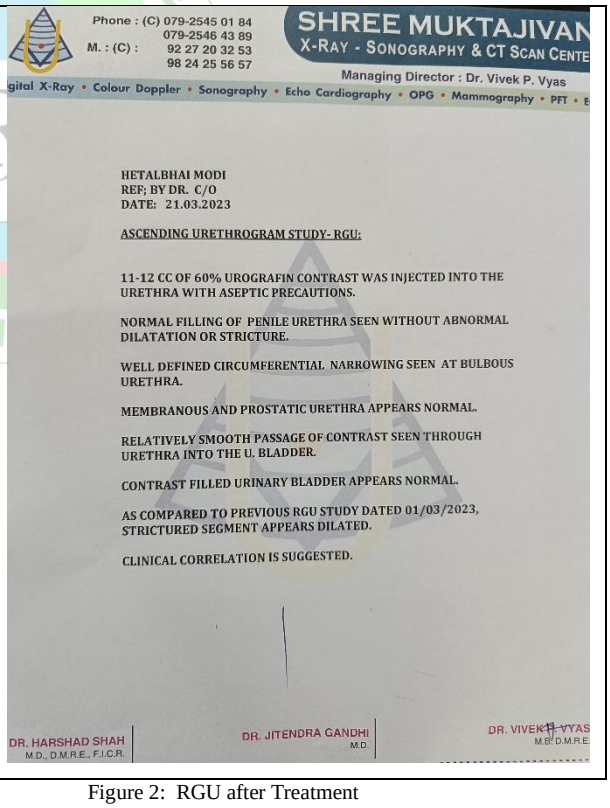

Figure 2: RGU after Treatment

MATERIAL AND METHOD

Uttar basti is the procedure of administration of medicated oil or decoction per urethral or per vaginal route. The dose of uttarbasti oil or decoction may varied from 10 ml to 60 ml depends on the surgeon's choice and severity of disease. In this study 30 ml oil was used for uttarbasti. Some other ingredients like black salt was used in powder form in amount of 2gm. After mixing salt in oil and make it warm enough to touch. Avoid too heat to cause burn. Uttarbasti oil was sterilized by the autoclaving process in OT. Other required instruments like disposable syringe 50 ml, surgical gloves, Urethral Dilators, NEL catheter, Xylocain jelly 2%, betadine swab and some sterilized gauze pieces. Sponge holding forcep. A hole sheet towel, Penile clamp, Tila tail were sterilized and kept ready before procedure.

PROCEDURE OF UTTARBASTI

(A) PURVAKARMA

Preparation of patient

- Part preparation wills be done.
- Take written informed consent of patient
- Patient will be advised to empty bladder prior to the procedure of *Uttarbasti.*
- Painting and draping will be done.
- Procedurewillbeperformedinthemorningaftercompletedigestionofthepreviousmeal.

(B) PRADHANA KARMA

- The patient will be comfortable positionon OT table.
- In Male-Supine Position, In Female-Lithotomy Position.
- After painting and draping then local anesthetic jelly will be pushed and urethra is gently stretched with dilators.
- Sterile NEL catheter of appropriate size will be attached to disposable syringe.
- 25ml sterilized *Tila Taila* will be filled in the syringe through NEL catheter attached to it and gradually quantity of tail increasing day by day.
- Catheter will be introduced in the urethra and *Tila Taila in* will be pushed
- Slowly NEL catheter was removed & penile clamp was applied for next half an hour.
- Dressing done.
- This procedure performed one time per day.

(C) PASCHAT KARMA

- Patient was kept in same position for 10-20 min.
- Post procedure BP and pulse rate were monitored.
- Patient was advised to avoid undue straining
- Uttarbasti was done at 3 days interval for 4 weeks

OBSERVATION AND RESULTS

The efficacy of uttarbasti therapy was assessed on the basis of the four criteria mentioned in the material and methods. The Q-max of patient before starting the therapy was 7.5 ml/sec and after the completion of complete trial the Q-max recorded was 18.5ml/sec. The PRV (Postvoidal Residual Volume) measured by inserting feeding tube in bladder and evacuated residual urine measured in flask before starting trial, it was 80 ml and after completion of trial was 40 ml. so there was significant improvement in reduction of PRV was noted in the study. Before starting of trial patients was complaining the frequent burning micturition i.e. 10-15 times in a day with burning sensation in urethral orifice and inside too. After completion of trial the burning micturition stops completely with the regulation of frequency of micturition. Before starting the trial patient have a very poor stream of urine and patient take usually 6 to 8 minute in completing the act of micturition. After complete therapy patient takes only 1-2 minute in completing the complete act with the good stream of urine flow. The RGU report also showed no e/o any stricture after completion of treatment (Fig-2). So on the basis of results observed in this case we found that Tila tailuttar basti procedure has significant improvement in the quality of life of a patient. The patient got complete relief from urethral stricture symptoms.Post procedural urethrogram was repeated after 6 weeks. It showed 70-80% in the Bulbar urethral stricture. Result showed the great significance of reduction in the obstruction of flow of urine, pain at the time of micturition and in the frequency of micturition.

DISCUSSION

Uttarbasti procedure acts both ways i.e. pharmacologically and mechanically on the stricture urethra. First the drug used by procedure get easily absorbed by mucosa in urinary bladder and acts accordingly on urethral stricture. When we look the pathophysiology of mutravrodh/ mutrakrichcha, we found that vata and kapha dosh are dominant. As we know that sankoch is the property of vata and most of the margavrodh occurs due to kaphadosha. Til taila posseses ushna, teekshna, sukshma, sara, vikasi, mrudukar, lekhana, vata-kapha prashaman, krimighna and vranaropak quality. It softens tissue, increases elasticity, penetrates up to deep tissue, heals and promote regeneration of tissue. Saindhav lavan has chedana, bhedana, margavishodhankara and sharir avayava mridukar quality. So it softens the fibrosed hypertrophied tissues and It increases active penetration of til taila. The saindhava acts as anulomak of dosha and sandhankara and ultimately helps in matramarg vishodhana. Makshik (Madhu) possesses lekhana, vranashodhana, ropana, srotavishodhana, yogavahi, kshataksha- yaghna property. Its action is synergistic to that of til taila and saindhav lavana. The medicated oil (uttarbasti taila) acts with its lekhan property on local soft tissue and pacifies vata and kapha dosha. It gives snehan to tissues producing mardavata. In modern aspect we can say that drug apamarg kshar tail reduces the fibrosis in stricture part of urethra and increase the stretchability of contracted urethra so the urine outflow became easier and good stream was formed that increased the Q-max. Now come to the mechanical effect of basti as due to frequent insertion of catheter in urethra for removal of residual urine, it mechanically dilated the contracted part so that the lumen remains open that reflect as good stream of urine, high Q-max and reduces the time of voiding. Due two above both reason the stasis of urine in bladder not happen and that reduces the chance of recurrent Urinary tract infection. It ultimately results in no recurrence of urethral stricture.

CONCLUSION

There was significant relief in urine flow and pain during micturition. No adverse effects were noted during treatment. So, the present study shows that uttarbasti is safe, effective and non invasive procedure in the treatment of urethral stricture with lesser chances of recurrence. Curative role of Urethral Dilatation with Tila taila uttarbasti in mutra marga sankoch shows better result as compared to present common technique.

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