

Non-specific Urethritis Syndrome: A Clinical Puzzle

Tripathi, K., Srivastava, P.K., Singh, R.G., Jai Prakash and Jawad Ahmad

Division of Nephrology, University Hospital, Banaras Hindu University, Varanasi, India.

INTRODUCTION

Non-specific urethritis is an abacterial cystitis seen in females and young male patients, who often fail to demonstrate other associated urinary abnormalities by conventional investigative set-up. Repeated long-term use of antibiotics does not improve the condition and nephrotoxic antibiotics like tetracyclines, aminoglycosides, cephaloridine and long-acting sulphas if used for a prolonged period, may further deteriorate the renal function. An indigenous drug Cystone has been used in this study in such patients and found satisfactory as a urinary analgesic and antispasmodic without toxic symptoms.

MATERIAL AND METHODS

Twenty five selected patients attending the out-patient department of Division of Nephrology between 1980-83 form the subject matter of the present study. All the patients were initially screened for the presence of secondary organisms by repeated cultures, usually 3 times, after stopping antibiotics for 1 week. The urine culture was evaluated for aerobic, non-aerobic as well as fungus and in case of males, prostatic fluid for the purpose of culture. All the urine samples were also subjected to acid-fast bacilli culture for 8-week evaluation. Those who did not grow any organism with persistent dysuria, frequency and burning syndrome were included for the study. All the 10 male patients were previously treated for chronic prostatitis with metronidazole, co-trimoxazole and tetracycline combination without much relief. No placebo study was conducted.

The vaginal smears in female patients did not grow any significant colony, hence we do not mention it as a causative or associated factor of urethritis.

Crystalluria was present in four patients of oxalate group. However, none of them had colicky pain or anuria/oliguria syndrome.

OBSERVATIONS AND RESULTS

Females out-numbered the males in the ratio 3:2. The majority of the patients belonged to the second and third decades of life (80%). The incidence of extramarital or pre-marital relation was obtained in 40% of the males and no such history was asked from females.

Age group	Male	Female	Total
20-30	5	8	13
31-40	1	6	7
41-50	4	1	5
Total	10	15	25

88% patients had chronicity of symptoms for more than one year. None of the patients had significant pyuria (pus cells < 5) or nocturia.

Table 2: Duration of symptoms			
Duration	Male	Female	Total
< 1 year	2	1	3
1-2 years	6	10	16
2-3 years	2	4	6
Total	10	15	25

The initial dose of Cystone was two tablets b.i.d. 32% of the patients improved within a fortnight, whereas the remaining 68% required a prolonged therapy of one month. Almost all the patients reduced the frequency from 4 to 2 by the end of the 4th week, when a maintenance dose of 1 tablet, 2 to 3 times a day was given for 2 months. Symptoms recurred in 24% of the patients after 3 months and they had to be restarted on the same dose for another 2 months with improvement.

Table 3: Duration of improvement in symptoms			
Duration (in week)	Male	Female	Total
1	1	2	3
2	2	2	4
3	4	6	10
4	3	5	8
Total	10	15	25

Table 4: Recurrence of symptoms			
	Male	Female	Total
8 weeks	–	–	–
10 weeks	–	–	–
3 months	2	6	6
6 months	2	3	5
No recurrence	6	6	12
Total	10	15	25

DISCUSSION

Urethral syndrome in abacterial cystitis may account for 27% to 41% of all cases of female dysuria (Gallagher *et al.*, 1965, Kraft and Stamey, 1977). Most of the time these patients do not show presence of known aerobic or anaerobic organisms; however, a meticulous culture facility for viruses and chlamydia may demonstrate its presence. These uncommon organisms have clinical significance, as they are not easily amenable to antibacterial treatment (Markell *et al.*, 1979).

This embarrassing clinical problem leads to repeated institution of antibiotics, urinary analgesics and anti-spasmodics without much improvement. We used an indigenous preparation Cystone in order to get rid of the persistence of these lower urinary tract problems. All these patients were screened thoroughly before by I.V.P. and cystoscopy so that no major underlying problems remained undetected. A frequent review of the cases showed significant improvement in their clinical picture.

In male patients chronic prostatitis is a well documented and established factor and those drugs which have a higher secretory property in racemose type of gland like prostate, exhibit better results, e.g. co-trimoxazole, tetracycline and metronidazole. However, persistence of these symptoms becomes difficult to deal with. Prostatic fluid culture for acid-fast bacilli may some times clinch the diagnosis.

Chatterjee *et al.*, (1982) reported that Cystone has a property of relaxing smooth muscle and a diuretic property, which may act as an antispasmodic in chronic irritation of the urethra leading to

spasm of the external sphincter. The diuretic property may reduce the contact of organisms with the bladder mucosa and improve the hydrokinetic natural killing property of commensal bacteria, which become opportunistic during convalescence. There have been other reports on Cystone and its use in various renal disorders (Sharma *et al.*, 1983); however its exact scientific role is yet to be evaluated. In our patients the average improvement of symptoms was noticed after 3 weeks of therapy, but recurrence of symptoms occurred in 13 patients after 3-6 months. Therefore its role as placebo needs also further evaluation. However, Cystone may be used as an urinary analgesic in such patients where assessment of the exact aetiology of non-specific urethritis has been a failure with conventional methods and repeated use of antibiotics has become ineffective.

SUMMARY

1. Non-specific urethritis is a syndrome due to abacterial cystitis of obscure origin often associated with viruses, chlamydia and L-form protoplast bacteria, which do not respond to antimicrobial therapy.
2. These patients need a joint work up with the help of a nephrologist and urologist and study of lower urinary tract with cystoscopy, I.V.P., prostatic massage and culture for aerobic, anaerobic, viruses, fungi and acid-fast bacilli.
3. In those conditions where no organisms have been demonstrated patients may be kept on Cystone for 2-3 months to allay the persistence of symptoms.
4. In 50% of patients symptoms may tend to recur after 6 months.

ACKNOWLEDGEMENT

We are thankful to The Himalaya Drug Co. for supply of samples.

REFERENCES

1. Chatterjee, B.N., Role of Cystone in various urinary disorders. *Probe* (1982): 1, 27.
2. Maskell, R., Pead, L. and Allen, J., The puzzle of urethral syndrome, a possible answer. *The Lancet* (1979): 1, 1088.
3. Gallagher, D.J.A., Montgomery, J.Z. and North, J.D.K., Acute infection in the urinary tract and the urethral syndrome in general practice. *Brit. med. J.* (1965): 1, 622.
4. Kaft, J.K. and Staney, J.A., the natural history of symptomatic bacteriuria in women. *Medicine* (Baltimore) (1977): 55, 56.
5. Sharma, B.M., Panagariya, Ashok and Jain, Kamal, Clinical trial of Cystone in various renal disorders. *Probe* (1983): 2, 113.