

BANGSHIL AN AYURVEDIC DRUG IN URINARY TRACT INFECTIONS

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INTRODUCTION

Urinary tract infection is painful and causes much suffering, so much so that an Irish doctor used to finish his evening prayers with "Oh God, when you take me may it not be through bladder". It indicates the agonising nature of pain in urinary tract infections. Since long many drugs have been tried and still it is a therapeutic challenge.

The main problems of UTI are :

- 1. Burning during micturition
- 2. Drug resistance
- 3. Relapse of infection and recurrence of pain.

Under these circumstances we were encouraged to have a clinical trial of an Ayurvedic drug bangshil for UTI. Published research data has shown that it is a safe drug without toxic or side effects.

BANGSHIL

Composition

(Only some important ingredients are given)
Each tablet contains in mg

Shilajit (Asphaltum)	60			
Svarnamakshika Bhasma	30			
(Ferri sulphuratum)	30			
Kasis (Ferri sulphas)	30			
Bang Bhasma (Tin Bhasma)	80			
Guggul	40			
(Balsamodendron Mukul)	40			
Vanskapoor	12			
(Bambusa arundinacea)	12			
Sandalwood oil	5			
(Taj, Sindhav, Vavding, Chitrak mul, Halder, Nagar moth, Gokharu, Bhangro, etc.)				



ACTIONS OF BANGSHIL

Anti-inflammatory, anti-bacterial, antiseptic, astringent, diuretic, healing and cooling, detoxicates genito-urinary system; raises general body resistance and improves defense mechanism of kidneys, bladder, urethra etc. No side effects or hazards as seen with antibiotics and sulpha drugs. Gives a sense of well-being. Safe even in prolonged use.

MATERIALS & METHODS

This study was carried out on 50 'troublesome' cases of U.T.I. who attended our surgical O.P.D. or were admitted in our SVBP Hospital, Meerut during 1981-82. These were called 'troublesome' because either they had recurrent infection, or were not relieved of symptoms by the usual drugs.

Patients were from both the sexes and the youngest patient was of 3 yrs and the oldest patient was aged 88 yrs.

Routine urine and blood examinations were done in all the cases. Urine culture and sensitivity tests were also done. Blood urea was done wherever necessary. Repeat urine culture was done once a week to follow-up response to Bangshil treatment.

Bangshil was given for 4 weeks in a dose of 2 tabs three times a day. Children were given 1-1 tablet tds according to age.

The trial period was 4 weeks, and all the patients were treated for 4 weeks.

AGE GROUPS

Sixteen cases (32%) were in the age groups of 31-50 yrs and 25 patients (50%) were in the age groups of 61-88 years. Surprisingly there were only 2 cases in the age group of 51-60. (Table I).

TABLE I Age Group, N - 50

Age Group	No. of Patients	%
3-10 yrs	2	4%
11-20 yrs	3	6%
21-30 yrs	2	4%
31-40 yrs	6	12%
41-50 yrs	10	20%
51-60 yrs	2	4%
61-70 yrs	14	28%
71-80 yrs	6	12%
81-88 yrs	5	10%
Total	50	100%



SYMPTOMS

The most common symptom was frequency of micturition (96%) followed by burning during micturition (64%) and difficulty during micturition (64%). There was history of retention of urine in 64%. Fever was present in 20 patients (40%) and fever with rigor was present in 10 patients (20%). 6 patients (12%) had discharge from urethra and it was non-gonococcal (NGU). (Table II).

TABLE II Symptoms.

Each patient had more than 1 symptom, N = 50

Symptoms	No of cases N = 50	%
Frequency of micturition	48	96%
Burning during micturition	32	64%
Difficulty during micturition	32	64%
Fever	20	40%
Fever with rigor	10	20%
Pain during micturition	16	32%
Urgency of micturition	14	28%
Pain in hypogastrium	12	24%
Hesitancy of micturition	10	20%
Discharge from urethra(NGU)	6	12%
General weakness	2	4%
History of retention of urine	32	64%

CLINICAL DIAGNOSIS

The largest number namely 21 patients (42%) had cystitis. There were 10 cases of pyelonephritis. Non-gonococcal urethritis (NGU) was present in 8 cases. Prostatitis or enlarged prostate was present in 8 cases. Three patients had paraplegia. (Table III).

TABLE III Clinical Diagnosis N = 50

Diagnosis	No of cases	%	
Cystitis	21	42%	
Pyelonephritis	10	20%	
Urethritis (NGU)	8	16%	
Prostatis/ Enlarged Prostate	8	16%	
Paraplegia	3	6%	
Total	50	100%	



URINE CULTURE

Proteus (20%), klebsiella (20%) and pseudomonas (20%) were the most common organisms seen in urine culture. In our series E.coli was only 6%. No growth was seen in cultures of 5 cases. (Table IV)

TABLE IV
Urine Culture
N = 50

Organism	No of cases	%
Proteus	10	20%
Klebsiella aerogenes	10	20%
Pseudomonas pyocyanes	10	20%
E.Coli	3	6%
Streptococcus faecalis	2	4%
Staphylococcus pyogenes	2	4%
Candida albicans	1	2%
Mixed growth	7	14%
No growth	5	10%
Total	50	100%

SENSITIVITY TESTS

Sensitivity tests were carried out before the drug trial and were repeated every week for four weeks. There were 10 cases (20%) that were drug resistant. The results of sensitivity tests before bangshil treatment are given below. (Table V)

TABLE V Sensitivity Test

Organisms	No of cases	Gentamycin	Mendalamine	Furadantoin	Cotrimoxazole	Chloramphenicol	Streptomycin	Nystatiin	Ampicillin	Drug Resistant
E.Coli	3	2	2	2	2	-	-	-	-	1
Proteus	10	8	4	1	-	-	1	-	-	2
Klebsiella aerogenes	10	6	4	A	-	1	1	-	-	2
Pseudomonas	10	7	4	1	8	-	1	-	-	2
Streptococcus faecalis	2	1	-	-	-	1	-	-	-	0
Staphylococcus pyogenes	2	-	-	-	-	1	-	-	-	1
Candida albicans	1	-	-	ı	-	-	-	-	-	1
Mixed growth	7	4	1	-	1	-	-	-	-	1
No growth	5	-	-	-	-	-	-	-	-	-
Total	50									10



BANGSHIL: DOSE & DURATION

Bangshil was given 2 tabs three times a day for 4 weeks. Children were given 1 tab three times a day according to age. Results were assessed after all the 50 cases had received four weeks of bangshil treatment. In cases which did not show improvement with bangshil alone, a suitable antibiotic was supplemented during 3rd and 4th weeks.

ASSESSMENT OF RESULTS

Assessment of results was done on the basis of objective and subjective response. They were classified as

Excellent: When symptoms were completely relieved after 2 weeks of treatment and urine culture was negative with bangshil alone. (Bangshil alone was continued for two more weeks in these cases).

Fair: When the patient required supplementation of an antibiotic/urinary antiseptic after second week for complete relief.

Failure: When patients did not get relief with bangshil supplemented with suitable antibiotic/urinary antiseptic even after four weeks of treatment.

RESULTS OF BANGSHIL TREATMENT

Overall, there was excellent relief in 32 patients (64%) and urine culture was negative in two weeks of treatment with bangshil alone. In those cases that did not get satisfactory relief with 2 weeks of bangshil treatment, a suitable antibiotic was given as supplement and there was relief in further 14 patients (28%). This included 10 cases which were resistant to antibiotics. In 4 patients (8%) there was no relief even after 4 weeks of treatment (poor response).

Relief was remarkable in cases of pain during micturition (87.5%) and in burning micturition (75.0%). (Table VI).

TABLE VI Results of Bangshil Treatment N = 50

Symptoms	No of cases N = 50	Excellent Relief	%	Fair Relief	%	Poor Relief	%
Frequency of micturition	48	32	66.70%	14	29.20%	2	4.10%
Burning during micturition	32	24	75.00%	7	21.90%	1	3.10%
Difficulty during micturition	32	22	68.80%	10	31.20%	0	-
Fever	20	10	50.00%	8	40.00%	2	10.00%
Fever with rigor	10	6	60.00%	3	30.00%	1	10.00%
Pain during micturition	16	14	87.50%	1	6.25%	1	6.25%
Urgency of micturition	14	8	57.10%	4	28.60%	2	14.30%
Pain in hypogastrium	12	4	33.30%	6	50.00%	2	16.70%
Hesitancy of micturition	10	6	60.00%	2	20.00%	2	20.00%
Discharge from urethra(NGU)	6	2	33.30%	1	16.70%	3	50.00%
Total	50	32	64.00%	14	28.00%	4	8.00%



DISCUSSION

In cases where there was excellent relief with bangshil alone, urine became sterile within two weeks. In cases where bangshil and an antibiotic were used, there was excellent relief and urine culture became negative in two weeks of this combined treatment. Sensitivity tests were done in 25 cases for bangshil with 1 mg of bangshil per disc but in vitro sensitivity was not observed, but in vivo, urine became sterile within two weeks of bangshil treatment. Any phosphaturia present before bangshil treatment, disappeared after bangshil treatment.

There were 10 drug resistant cases. These became drug sensitive after two weeks of bangshil treatment and they responded well with bangshil plus antibiotic treatment and their urine culture became sterile.

In one case of candida albicans which was resistant to nystatin, after two weeks of bangshil treatment, it became sensitive to nystatin and this case was successfully treated.

CONCLUSION

- 1. Bangshil is an excellent therapeutic agent in the management of UTI either alone or in combination with antibiotics.
- 2. Bangshil with antibiotics can be considered as an ideal combination where catheter is to be indwelled for a long time. Also in all cases of catheterisation as prophylaxis against UTI.
- 3. Symptomatic relief and sterile urine culture was obtained in 32 cases (64%) with bangshil alone in two weeks' treatment. When supplemented with an antibiotic, after two weeks, there was improvement in further 14 cases (28%). Even after 4 weeks of treatment with bangshil and an antibiotic, there was no relief in 4 patients (8%) (poor response).
- 4. All drug resistant cases became sensitive to antibiotics after two weeks of bangshil and there was a sense of well being.
- 5. Appetite improved and bowel movements were regularised with bangshil and there was a sense of well being.
- 6. No side or toxic effects were observed with bangshil.
- 7. This trial has shown that bangshil is a safe drug in the treatment of UTI either alone or with antibiotics.

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