

AN OPEN LABELED, SINGLE ARMED, PROSPECTIVE, PHASE I, CLINICAL STUDY TO EVALUATE EFFICACY OF RASAYANA CHURNA IN MUTRAKRUCHRA W.S.R. TO URINARY TRACT INFECTION.

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Abstract :

Mutrakriccha is a disease related with urinary system. It itself indicates pain during micturation. Antibiotics and urinary antiseptic drugs are used in Mutrakruchra (UTI) which provide good recovery but have certain drawbacks 1) Have many side effects such as mild nausea, diarrhea, heartburn, headache. 2) Bacterial resistance, 3) higher cost, 4) Relapse after some period. Ayurveda has many drugs which can overcome all these drawbacks and prove to be effective in Mutrakruchra. Rasayana Churna is one of them.

Rasayan churna a polyherbal medicine which contains Stem of Guduchi, fruit of Gokshura and fruit of Amalaki is used in management of mutrakrichchha. This has high levels of safety for daily use and effectiveness.

All 30 patients of Mootrakruchra who attended OPD and IPD of Kayachikitsa department of our hospital were selected through strict inclusion and exclusion criteria irrespective of sex, religion, education, occupation, economical status. Rasayan churna was given in dose 5gm twice daily, orally for 7 days in Apana kaal. Follow up was taken on 0th, 3rd, 7th day.

Parameter were observed Sadaha Mootrapravrutti (Burning micturition), Sashula Mootrapravrutti (painfull micturition), Muhurmuhu Mutrapravrutti (frequency of micturition), Sheeta purvaka jwara , urine microscopy.

Upashay and anupashay were assessed by relief in symptoms of Mootrakruchra. Observations noted and analysed statistically. Results showed that Mutrakriccha was relived with use of Rasayana churna.

Keywords : Rasayan Churna, Mutrakriccha, Urinarytract infection

Introduction :

Vegadharana means suppression of natural urges. Initiation of vega are normal body activities through which unwanted body materials are excreted ,this is a process carried out by body at regular intervals and controlled by nervous system. Suppression of which not only stops the elimination of waste products but also brings strain and disorders of nervous system causing many diseases.⁽¹⁾

The suppression of natural urges like micturation and defecation leads to many diseases. Lack of water intake, stress, suppression of urges etc leads to various diseases of Mutravaha srotas such as Mutrakruchra. Sadaha mutrapravrutti and sashul mutrapravrutti are the cardinal symptoms of Mutrakruchra which can be correlated with urinary tract infection.

Antibiotics and urinary antiseptic drugs are used in Mutrakruchra (UTI) which provide good recovery but have many drawbacks 1) Have many side effects such as mild nausea, diarrhea, heartburn, headache.2) Bacterial resistance 3)higher cost 4) Relapse after some period. Ayurveda has many drugs which can overcome all these drawbacks and prove to be effective in Mutrakruchra. Rasayana Churna is one of them. This has high levels of safety for daily use and effectiveness.

Aim and Objectives :

To evaluate the effect of Rasayana Churn in Mutrakruchra w.s.r. to urinary tract infection.

Materials and methodology :

Methodology :

To study the clinical evaluation of Rasayana Churna in the management of Mootrakruchra w.s.r. to urinary tract infection the research work was designed as follows.

Design : A Prospective ,randomized, single blind ,open end ,clinical trial was conducted on 30 patients.

Selection criteria :

All 30 patients of Mootrakruchra who attended opd and ipd of Kayachikitsa department of our hospital were selected irrespective of sex ,religion,education, occupation ,economical status.

Inclusive criteria :

Patients between 18 to 60 years of age irrespective of sex and marital status.

Sadaha Mootrapravrutti : burning micturition.

Sashul Mootrapravrutti : painful micturition.

Muhurmuhu Mootrapravrutti : frequency of micturition.

Sheeta purvak jwara : fever with chills.

Exclusion criteria

Diabetes mellitus

Urinary tract malignancy

Renal calculi

Pregnancy.

Drug :

Rasayana churna as mentioned in Ashtanga Hridaya ,Sutrasthana 39th chapter was used containing Guduchi,Gokshur and Amalaki.

Preparation of drug:

Stem of Guduchi, fruit of Gokshura and fruit of Amalaki were taken in fine powder form. Each 1kg of

above churna was mixed properly. Packets were prepared, each containing 80 gms of Rasayana Churna.

Drug regimen :

Dose : 5gm twice daily

Route of administration : oral

Duration : 7 days

Aushadhi sevan kaal: Apana kaal (before meals)

Follow up : D0 ,D 3 ,D7

Parameters :Subjective :

Sadaha Mootrapravrutti (Burning micturition)

Sign	Grade	Score
Absent	0	0
Burning only during micturition	+	1
Burning persist up to one hour	++	2
Burning continues even after one hour	+++	3

Sashula Mootrapravrutti (painfull micturition)

Sign	Grade	Score
Absent	0	0
Pain at the time of micturition	+	1
Pain persistent but relieved by analgesics	++	2
Pain persistent and not relieved by analgesics	+++	3

Muhurmuhu Mutrapravrutti (frequency of micturition)

Sign	Grade	Score
1-5 times /day	0	0
5-10 times/day	+	1
10-15 times/day	++	2

More than 15 times/day	+++	3
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Sheeta purvaka jwara :

Sign	Grade	Score
Normal body temperature	0	0
Body temp 99-100 F	+	1
Body temp 101-103 F	++	2
Body temp Å 103 F	+++	3

Objective criteria:

Urine microscopy were done before and after treatment .

No. of pus cells:

No. of pus cells	Grade	Score
0-5/hpf	0	0
5-10/hpf	+	1
10-15/hpf	++	2
15/hpf	+++	3

Total effect of therapy :

Upashay and anupashay were assessed by relief in symptoms of Mootrakruchra:

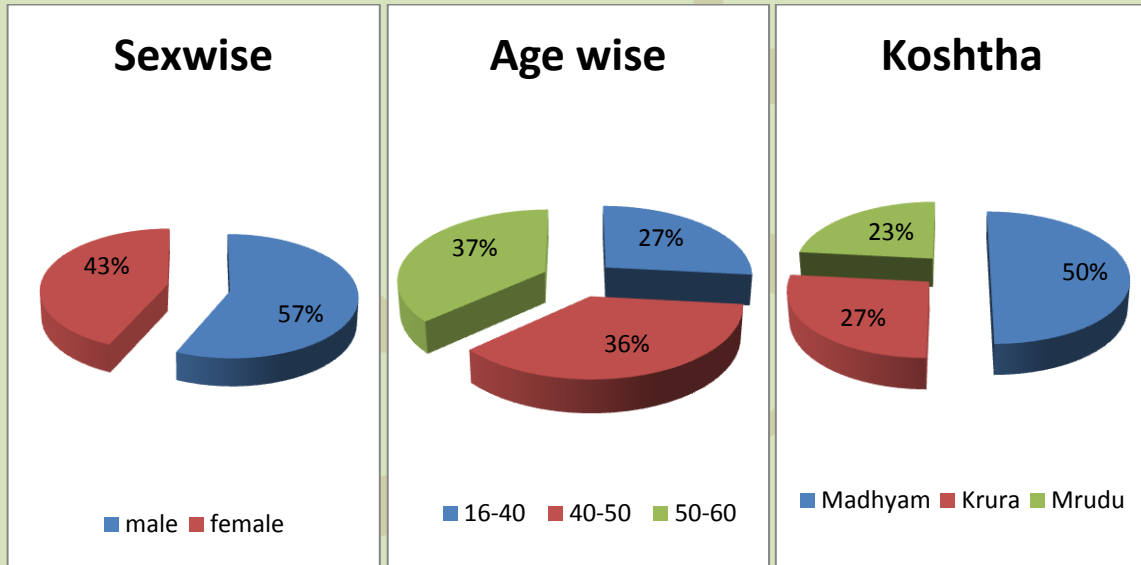
Uttam upashaya	Relief 75% and above
Madhyam upashaya	Relief upto 50 to 75%
Heen upashaya	Upto 50% relief
Anupashaya	No relief and increase in symptoms.

Observation and results:

Sex	Male	Female	X square	Probability
No. of patients	17	13	0.533	P> 0.05

Age group	16-40	40-50	50-60	X square	Probability
No. of patients	8	11	11	0.6	P> 0.05

Koshtha	Madhyam	Krura	Mrudu	X square	Probability
No. of patients	15	08	07	3.38	P> 0.05



It was observed that Male : Female ratio was 57: 43.this difference was statistically not significant .

It was observed that maximum number of patients were from group 40-50years and 50-60 years i.e.(11 each)8 patients were from group 16-40 years.

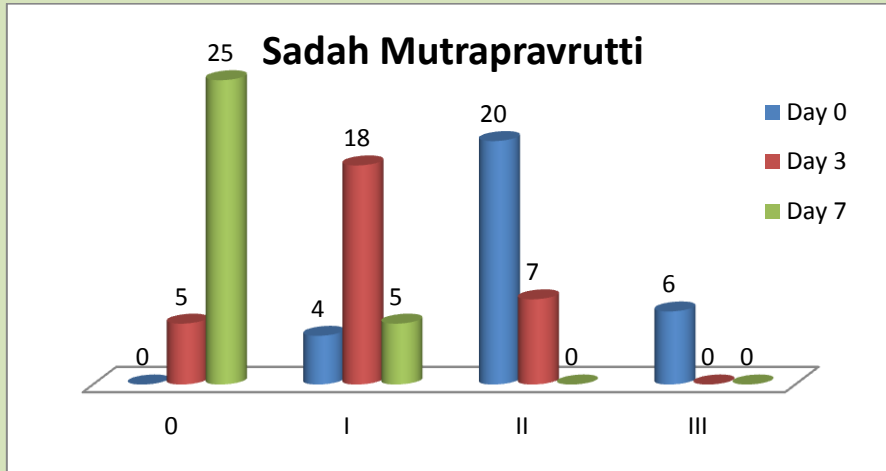
Koshtha wise observed patients were 15 from Madhyam, 8 from Krura and 7 from Mrudu.

Sadaha mutra pravritti : (burning micturition)

Gradation	Day 0	Day 3	Day 7
0	0	05	25
I	04	18	05

II	20	07	00
III	06	00	00

Chi-Square =83.44 P< 0.05 P <0.001



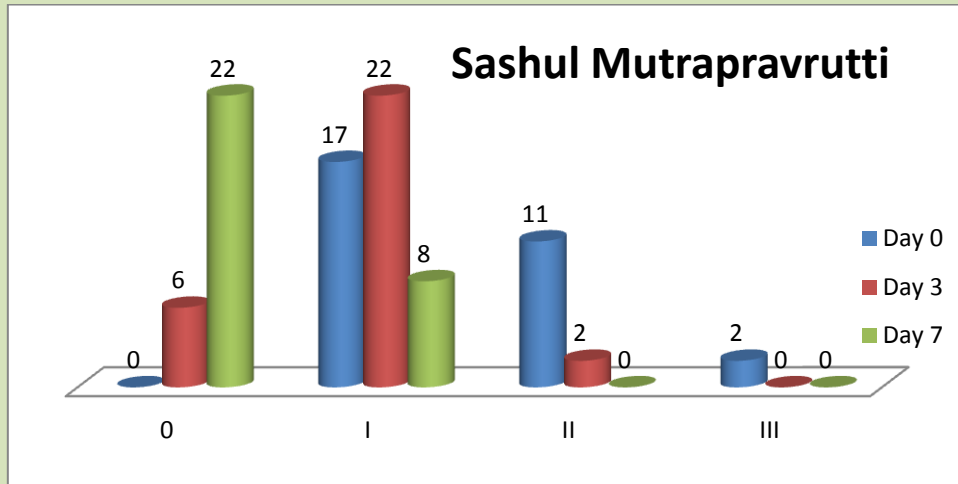
Before treatment (at 0th day) patients with sadah mutra pravrtti having grade II & III were maximum i.e. respectively 20 & 06 (total 26 out of 30)

After treatment (at 7th day) patients with sadaha mutrapravrtti having grade 0 were maximum i.e.25. observed difference was statistically significant.

Sashul mutrapravrtti (painful micturition)

Gradation	Day 0	Day 3	Day 7
0	0	06	22
I	17	22	08
II	11	02	00
III	02	00	00

Chi-Square = 70.88 P< 0.05 P <0.001



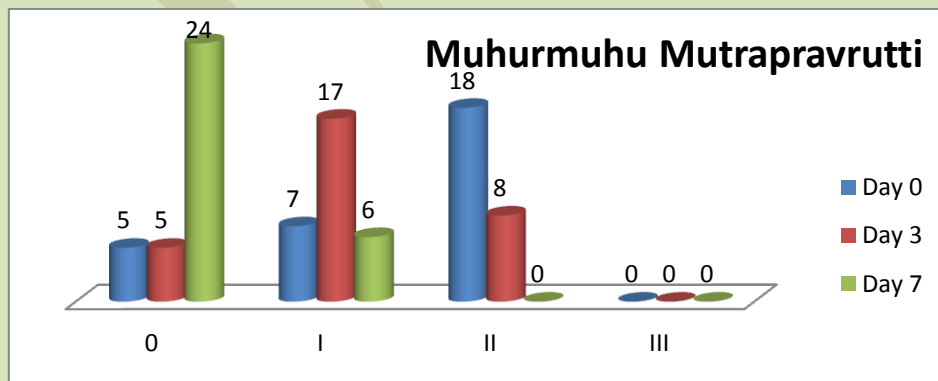
Before treatment (at 0th day) patients with sashula mootrapravrutti having grade I & II were maximum i.e. respectively 17 & 11 (total 18 out of 30)

After treatment (at 7th day) patients with sashula mutrapravrutti having grade 0 were maximum i.e.22 observed difference was statistically significant.

Muhurmuhu /Mootrapravrutti (frequency of micturition)

Gradation	Day 0	Day 3	Day 7
0	05	05	24
I	07	17	06
II	18	08	00
III	00	00	00

Chi-Square =57.26 P< 0.05 P <0.001



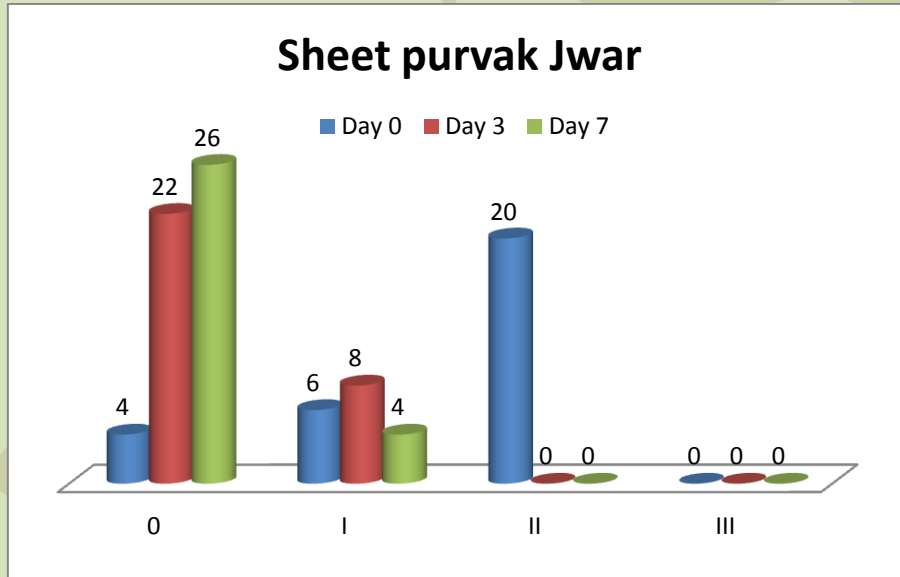
Before treatment patients with muhurmuhu mootrapravrutti having Grade II were maximum i.e. 18.

After treatment patients with muhurmuhu mootrapravrutti having grade 0 were maximum i.e.24.Observed difference was statistically significant.

Sheetapurvak Jwara (fever with chills)

Gradation	Day 0	Day 3	Day 7
0	04	22	26
I	06	08	04
II	20	00	00
III	00	00	00

Chi-Square =57.17 P< 0.05 P <0.001



Before treatment patients with sheetapurvak jwara having Grade II were maximum i.e. 20

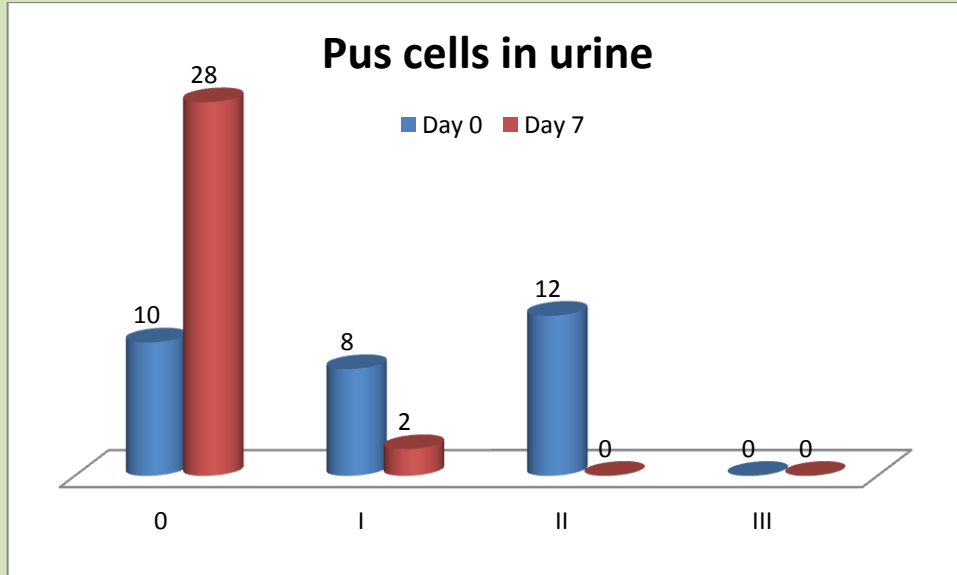
After treatment patients with sheetapurvak jwara having grade 0 were maximum i.e. 26. Observed difference was statistically significant.

Pus cells in urine :

Gradation	Day 0	Day 7
0	10	28
I	08	02

II	12	00
III	00	00

Chi-Square =46.16 P< 0.05 P <0.001



Out of 30 patients 20 were having Grade I & II pus cells in urine microscopic examination.

After treatment 28 patients got relief with absence of pus cells urine microscopic examination. Observed difference was statistically significant

Discussion :

The observed difference may be due to combined effects of the drug the Amalaki and Guduchi are Tridosha shamak and Gokshur is vata –pitta shamak.

Sadah Mutrapravrutti

Pitta and vata dosha are factors causing burning sensation. Gokshur and Amalaki both are madhur vipak and Sheet virya and hence decreases the pitta prakop and with madhur vipak minimizes the effect of vata prakop. also samyak mutrapravrutti

was observed in patient due to bastishodhan and mutral properties (diuretics) of Gokshur.

Sashul Mutrapravrutti

Pain is due to vata prakop. the drug Gokshur and Amalaki both are Madhur vipak, Guduchi with ushna virya decreases the vata prakop and acts as an analgesic. Due to this it reduces the pain.

Muhurmuhu mutrapravrutti (frequency of micturition)

In Mutrakrucho, vata dosha either individually or aggravated by pitta and kapha dosha, reach the

Basti producing mutravaha srotasa Dushti and causing symptoms like incontinence ,dribbling,frequency etc.

Rasayan Churna is effective in this condituion as follows-

1.Gokshur & Amalaki –Madhur vipak-Vatashamak

2. Gokshur & Amalaki-Sheeta virya – pittashamak

3.Guduchi (prabhav)- Tridoshshamak

Sheetapurvak Jwara (Fever with chills)

Guduchi has tridosh shamak property along with Deepan and pachan activity resulting in Aamapachan which reduces jwara. Gokshur and Guduchi has antimicrobial and anti inflammatory property which reduces the infection due to this the fever is also reduced.

Pus cells in urine microscopic examination :

Gokshur has antimicrobial activity .Also Gokshur have Mutrala properties.As the infection subsides the no of pus cell in urine also reduces.

Conclusion:

From above observations and analysis it may be concluded that Rasayan churna is very useful in Mutrakriccha vyadhi.

1. Rasayan churna is more effective in symptoms like sashul, sadah Mutrapravrutti
2. It produces good health of individuals and improvement of immunity of individual
3. There is need of clinical trial on large group of patients for long duration in various mutravah srotas vyadhi like chronic renal failureetc.
4. Rasayan churna is also effective in symptoms like daurbalya, bhram, gaurav and aruchi.
5. Rasayan churna is also effective in disease like amlapitta, sandhigat vat, Stahulya etc.

Benefit to Society

It can be consumed by every group with general symptom for benefit in future as it is a immune booster helps in providing healthy mind and body. It helps to avoid aging symptoms

Cost Effective

As compared to other products available in market this drug is very economic so can easily be consumed by common man.

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