

**Research Article**

## Randomised controlled clinical study of Arvarukbeejadi yog in the management of Pittaj Mutrakrichcha

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**ABSTRACT:**

Pittaj mutrakriccha disease affecting daily activities of life an impact on physical and mental health of the person. Ayurveda has provided both preventive as well as curative aspect for it. In this clinical study Arvarukbeejadi yog has compared to Darvi churna for pittaj mutrakriccha and in overall study observed that Arvarukbeejadi yog has given better result in pittaj mutrakriccha.

**KEY WORDS:** Pittaj Mutrakriccha, Arvarukbeejadi Yog, Darvi Churna, UTI (Urinary tract infection)

**INTRODUCTION:**

The disease Mootrakrichcha is documented in classical text of Ayurveda. Ayurveda gives guidelines to treat this conditionality and increased quality of life of an individual. There are different modalities for management of Mootrakrichcha.

The pittaja variety of Mootrakrichcha can be correlated with UTI in a modern parlance and theoretical and clinical symptomatology of the disease.

According to Charak after vatadi dosha prakopa separately or unitedly localized in basti and disturbs the function of urinary tract & causes painful micturition i.e. Mootrakrichcha

पृथङमलाः स्वे कुपिता निदानैः सर्वथैवा कोपमुपेत्य बस्ती ।<sup>२</sup>  
मुत्रस्य मार्गं परिपिडयन्ति यदा तदा मूत्रयतीह कृच्छ्रात् ॥ च चि २६:३३  
पीतसरवतं सरुजं सदाहं कृच्छ्रं मुहुं मूत्रयतीह पितात ।<sup>४</sup> मा.नि.मू.३

Though the conventional methods being used have only symptomatic relief, No curative effect is provided, along with many adverse effects.

The drugs selected under the study “Arvarukbeejadi Yog” and “are described in ‘Charak Samhita Chikitsastan 26 chapter, possesses properties which help to pacify Tridosha and does Pittaj shaman which provides a better approach of treatment.

In this clinical study, there will be total 72 patients selected, which will be divided into 2 Groups containing 36 patients in each group. In first Trial Group 36 patients will be treated with Arvarukbeejadi

Yog and Second group will be Control Group in this 36 patients, will be treated by Darvi churna which is already proven.

Hence, with all the above parameter, result will be drawn on the basis of statistical analysis.

**Need for study:**

- Amongst the causes of UTI; bacteria and other microbes are most common Cause in UTI. These are painful and annoying cause of health usually by E-coli affecting any part of the urinary tract especially lower tract.
- Pittaja Mootrakrichcha vyadhi where difficulty in micturition due to pain and burning sensation is Pradhanlakshana.
- Affecting daily activities of life having an impact on physical and mental health leaving person distressed and annoying. Certain medications, consumption of alcohol, tropical climate, lack of water intake, unhygienic lifestyle etc. will tend person to have UTI. UTI is more frequent in modern lifestyle. UTI can be treated by many formulations which have been described in Ayurveda and are proven to be not only curative but also preventive.
- Modern medicine, does not have proper curative medication for Pittaj Mootrakrichcha but Ayurveda has provided both preventive as well as curative aspect for it.

Hence, I have selected to study efficacy of Ayurvedic Kalpa (Preparation) on it and taken 'Arvarukbeejadi Yog': for its management.

The contents of this Kalpa, has property to break the Samprapti (Pathogenesis) of Pittaj Mootrakrichcha and they are easily available and also have economically low cost. So, I have selected it for the study.

Taking, all these points into consideration ,an attempt has been made in following work to help to provide better alternatives and solution to the problems of Pittaj Mootrakrichcha

### AIM AND OBJECTIVES:

#### Aim:

To Study the efficacy Arvarukbeejadi Yog in Pittaj Mootrakrichcha

#### Objectives :

##### Primary-

To evaluate the efficacy of Arvarukbeejadi Yog in Pittaj Mootrakrichcha patients.

#### Secondary-

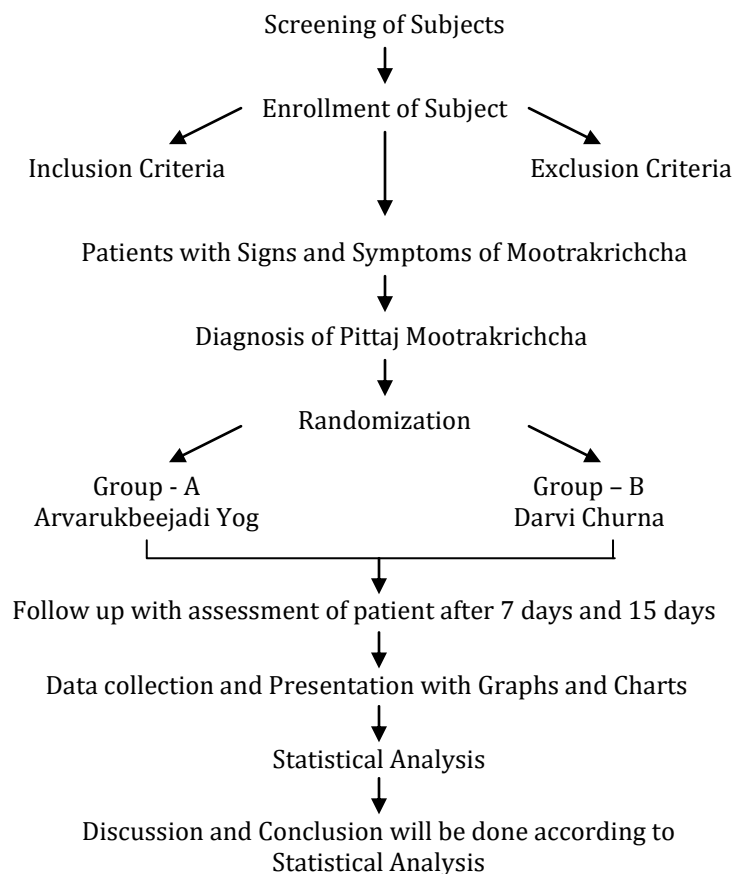
- To Study the comparison between efficacy of Arvarukbeejadi Yog and Darvichurna in Pittaj Mootrakrichcha patients.
- To study the literature of Pittaj Mootrakrichcha from Ayurvedic and Modern text and to compile it.

#### Type of Study Design :

The Patient will be taken from OPD and IPD of Kayachikitsa Department of House Hospital. The diagnosis of Pittaj Mootrakrichcha will be done according to signs and symptoms. A separate Case paper will be designed with special consent. Then selected treatment will be giving for 15 days. After 15 days result assessment will be done with the pacification of sign and symptoms, the follow up will be done after 7 days and 15 days. Then the result assessment will be done with observation and statistical analysis.

All the aspect of trial would be explained to participating patients and then after a written and informed consent would be taken from the patients of both groups.

Chart No. 1: Flow chart of study



**Setting:**

Patients who will report in the OPD and IPD of House Hospital, will be carefully selected on the basis of inclusive criteria.

**Duration of Study:** 15 Days

**Selection Criteria:****Inclusion criteria:**

- Diagnosis of patients Pittaja Mootrakrichcha will be done according to classical signs & symptoms.
- Age between 15-65 yrs.
- Patients will be taken irrespective of gender
- Cystitis, Urethritis.

**Exclusion criteria:**

- Subjects having surgical problems of UTI & its complications.

- Congenital anomalies.
- K/C/O: Benign Prostate Hypertrophy, cancer, Tuberculosis, Diabetes Mellitus, Hypertension, Sexually transmitted diseases, Impaired renal function, renal calculi, pyelonephritis & any other major illness
- Pregnancy.

**Withdrawal Criteria:**

- Patient who will discontinue the treatment.
- Patient shows any type of adverse effect.
- If any complication occurs.

**METHOD:**

Grouping and randomization of Patients.

Total 72 patients selected randomly.

**Table No. 1: Grouping of Patients**

|                              | <b>Group A<br/>Trial Group</b> | <b>Group B<br/>Control Group</b> |
|------------------------------|--------------------------------|----------------------------------|
| <b>Drug</b>                  | Arvarukbeejadi Yog             | Darvi Churna                     |
| <b>Age</b>                   | 15-65 yrs.                     | 15-65 yrs.                       |
| <b>Duration of Treatment</b> | 15 days                        | 15 days                          |

**Selection of Drug:****A. TRIAL GROUP : Arvarukbeejadi Yog**

कर्कटीमधुराशीतात्वतिक्ता कफपित्तजिता रक्तदोषहरा पक्वा मूत्ररोधनि नाशनि १॥रा नि.  
मधुयष्टि स्वादुरसा शीतपित्त विनाशिनी । वृष्या शोष क्षय हरा विषच्छर्दि विनाशिनी २॥ध.नि.  
तिक्ता दारुहरिद्रा स्यादुक्षोष्णा व्रणमेहजित । कर्ण नेत्र मूखोदभूतां रुजं कण्डूश्च नाशयेत् ३॥ध.नि.॥

**Table No. 2: Contents of Arvarukbeejadi Yog with their details**

| <b>Drug</b>  | <b>Latin Name</b>         | <b>Family</b>        | <b>Rasa</b>  | <b>Virya</b> | <b>Vipak</b> | <b>Guna</b>  | <b>Dosha-Ghnata</b> | <b>Part Used</b> |
|--------------|---------------------------|----------------------|--------------|--------------|--------------|--------------|---------------------|------------------|
| Arvaruk beej | <i>Cucumis sativa</i>     | <i>Cucurbitaceae</i> | Madhur       | sheet        | Madhur       |              | Kafaghna pittaghna  | Beej             |
| Madhuk       | <i>Glycerrhiza glabra</i> | <i>Leguminasae</i>   | Madhur       | sheet        | Madhur       | Guru Snigdha | Tridoshgna          | Mool & Ghansatva |
| Darvi        | <i>Berberis asiatica</i>  | <i>Berberidaceae</i> | Tikta Kashay | Ushana       | Katu         | Laghu Ruksha | Kafaghna pittaghna  | Mool & tvak      |
| Tandul       | <i>Oriza sativa</i>       |                      | Madhur       | Sheet        | Madhur       | Mootral      | Pitaghna            | beej             |

**B. CONTROL GROUP : Darvi Churna**

तिक्ता दारुहरिद्रा स्यादुक्षोष्णा व्रणमेहजित । ३  
कर्ण नेत्र मूखोदभूतां रुजं कण्डूश्च नाशयेत् ॥ ध. नि. ॥

**Table No. 3: Contents of Darvi Churnawith their details**

| <b>Drug</b> | <b>Latin Name</b>       | <b>Family</b>        | <b>Rasa</b>  | <b>Virya</b> | <b>Vipak</b> | <b>Guna</b>  | <b>Doshaghna</b>   | <b>Part Used</b> |
|-------------|-------------------------|----------------------|--------------|--------------|--------------|--------------|--------------------|------------------|
| Darvi       | <i>Berberi asiatica</i> | <i>Berberidaceae</i> | Tikta Kashay | Ushana       | Katu         | Laghu Ruksha | Kafaghna pittaghna | Mool & tvak      |

The drugs used for study will be obtained from a GMP certified Ayurvedic pharmacy and certificate of authenticity of drug will be obtained.

Table No. 4: Research Methodology

| Groups                  | Trial Group (Group A)                        | Control Group (Group B)                      |
|-------------------------|--|--|
| No. of subject          | 36 Patients                                  | 36 Patients                                  |
| Drug                    | Arvarukbeejadi Yog                           | Darvi Churna                                 |
| Duration of study       | 15 days                                      | 15 days                                      |
| Dose                    | 3g (B.I.D.)                                  | 3g (B.I.D.)                                  |
| Route of administration | Oral   | Oral   |
| Anupana                 | Tandulodak (50ml)                            | Tandulodak (50 ml)                           |
| Sevan Kaal              | Apankaal<br>(Before Lunch and Before Dinner) | Apankaal<br>(Before Lunch and Before Dinner) |

**Method of Preparation :**

एवार्बुबीज मधुकं सदारु पैतै पिबेतण्डुलधावनेन् ।<sup>२</sup> च.चि. २६:५३

कण्डितं तण्डुपलं जलं त्वष्ट्रगुणे क्षिपेत ।

धौतं कृत्वा जलं तत् तण्डुलोदेकं मुच्यते ॥ आ. परिभाषा ॥

ArvarukbeejadiYog will be prepared as per text by standard method and standardization will be done.

Before the treatment the contains of Arvarukbeejadi Yog will be taken in the 6 gm. Churna. (Arvarukbeejadi Churna 6 Masameans 4500 mg. + Yashtimadhu Churna 1 Masha means 750 mg. and DarviChurna 1 Masha means 750 mg.) The Churna of all contains of ArvarukbeejadiYog will be given to 36 patient with divided daily dose package in plastic container for preparation ArvarukbeejadiYog.

**Dose: 3 gm./B.I.D.**

**Anupana:** Tandulodak

**Uses and Actions:**

Mutrala, Vata Pittahara, Basti Shodhan, Mutra Virechaniya, MutraKrichhahara.

Before the treatment the contents of Arvarukbeejadi Yog will be taken in the Churna form, separately. The Churna of all contents of Arvarukbeejadi Yog will be given to 36 patients with divided daily dose package in plastic container.

Same procedure will be followed for the next 36 patients by giving churna of Darvichurna

Patients will be trained to prepare respectiveYog & Tandulodak as per text by standard methods. Then patient shall be advised for the preparation of the Yoga & Tandulodak in their home and take as per the advised dose.

**Criteria of assessment:**

**Sample Size :** 72 Patients

**Group A** – Management of randomly selected 36 patients with Arvarukbeejadi Yog.

**Group B** – Management of randomly selected 36 patients with Darvichurna.

**Sample Technique :**

Simple random sampling (SRS) – Patients will be randomly from OPD and IPD.

**Assessment criteria:****Parameters for assessment –****Subjective criteria:**

- Peetamootrata (yellow colored urine)
- Dahanmootrata (Burning Sensation)
- MutraKrichhata (Pain in Micturition)
- Muhurmuhu (Difficulty in Micturition)

**Objective criteria:**

- pH of urine
- Pus cells
- Epithelial cells
- Saraktamootrata (No. of RBC in urine)

**Grading and Scoring -**

For symptoms- Subjective parameters was considered.

For signs- Appropriate clinical parameters was considered.

Table No. 5: Subjective criteria

| Lakshan             | 0                            | 1  | 2  | 3   |
|---------------------|------------------------------|--|--|---|
| Sadahamutrata       | No burning                   | Mild burnining in mirning or at starting of micturition  | Moderate- tolerable burning at starting & during micturition | Severe- not tolerable at starting, during micturition & prolonged for long time |
| Peetmutrata         | No                           | Mild yellow  | yellow   | Deep yellow   |
| Krichamootrata      | No pain                      | Mild- rare pain in morning or at starting of micturition | Moderate- tolerable pain at starting & during micturition    | Severe- not tolerable at starting, during micturition & prolonged for long time |
| Muhur-muhu mootrata | Normal frequency (6-8 times) | Frequent controllable (9-10 times)                       | Often frequent not able to control (11-12times)              | Persistent > 12 times   |

**B. OBJECTIVE CRITERIA:****Table No. 6: pH of urine**

|                | Before treatment | After treatment |
|----------------|------------------|-----------------|
| <b>Group A</b> |                  |                 |
| <b>Group B</b> |                  |                 |

|  | 0        | 1                | 2                              | 3                    |
|--|----------|------------------|--------------------------------|----------------------|
| <b>No. of pus cells</b>                          | 0-4      | 5-20             | 21-40                          | >40                  |
| <b>No. Epithelial cells:</b>                     | 0-2      | 3-20             | 21-40                          | >40                  |
| <b>Saraktamootrata<br/>(no. of RBC in urine)</b> | No RBC's | Few RBC's (0-10) | Moderate no. of RBC's (>10-20) | Abundant RBC's (>20) |

**Overall score :**

|          |   |           |
|----------|---|-----------|
| 1 to 9   | : | Poor      |
| 10 to 18 | : | Good      |
| 19 to 27 | : | Excellent |

**Assessment of clinical results-**

Detailed clinical observations will be done on 15<sup>th</sup> day for assessment of results. It is analyzed by appropriate statistical test. The final data will be divided in four groups –

**OBSERVATION AND RESULTS:****Table No. 7: Assessment of clinical results**

|           |  |
|-----------|--|
| Excellent | Above 75%(One Lakshana present)            |
| Good      | Between 75% to 50%(One to Two Lakshanas)   |
| Moderate  | Between 50% to 25%(Two to Three Lakshanas) |
| Poor      | Below 25% (More than Three Lakshanas)      |

**PeetaMootra(yellow color urine):**

In the present study the effect of drugs on peetamootrata was highly significant in both the groups. The effect of drugs on peetamootrata registered 63% cure in group B and 65% cure in Group A.

As the arvarukbeejadi yog having Pitta shamaka and Pitta haradue to their Madhurarasa and Madhura vipaka and seta veerya they do pitta shaman and pitta haraby mootra virechana property thus reducing peetamootrata. So the patients of Groups A showed highly significant result.

**SadahaMootraPravrutti( Burning Micturition):**

In the present study the effect of drugs on DahaMootrata was highly significant in both the groups by statistical analysis. The effect of drugs on Sadahamootrata registered 34% cure in group B and 52% cure in group A.

The drugs in Groups A have Madhuraarasa, Madhura vipakaa and the seta veerya which are pitta hara. So the improvement can be understood based on rasa, veerya and vipakaa of Group A show more effective than group B.

**Sarakta Mootrata(Haematuria):**

In the present study the effect of drugs on saraktamootrata was highly significant in both the groups. The effect of drugs on Saraktamootrata registered 63% cure in group B and 69% cure in Group A.

As all the drugs of this Dharvichurnais katukahayarasa and Arvarukbeejadi yog having seta veerya which acts as a stambani.e. Haemostatic therefore useful for arresting internal and external bleeding. Hence useful in Haematuria.

**PH of urine:-**

**Epithelial cells:-**In the present study the effect of drugs on epithelial cells was significant in Group B and Highly Significant in Group A. The effect of drugs on Epithelial cells registered 56% cure in group B and 61% cure in Group A.

Reduction in epithelial cells.. This may be the diuretic properties of drugs.

**Pus cells:-**In the present study the effect of drugs on puss cells was significant in group B and Highly Significant in group A. The effect of on Pus cells registered 43% cure in group B and 58% cure in Group A.

This may be the drugs of Arvarukbeejadiyog may having better antimicrobial activity than the drugs of Darvichurna. Overall both drugs have shown definite antimicrobial activity. So complications of urinary tract are ruled out. So both drug acts as antibacterial, anti inflammatory and diuretic. The definite antimicrobial activity of this drug of both is not established till now, but it can be eliminate the urinary complications and it may be due to their diuretic property or anti inflammatory property or Krimighna property.

**DISCUSSION:**

The overall affect of the therapies showed both the Arvarukbeejadiyog and darvi churna having better result in management of Pittaja Mootrakruchra.

Even though highly significant results are observed in both Groups ,but variation in 't' values, shows Group A is more effective than Group B which is justified by statistical analysis On the basis of literature observation and results with statistical data the discussion and conclusion were done

**CONCLUSION:**

Strictly based on the observation and result of statistical analysis.

Pittaja Mootrakruchra is Pakwashaya samutha shooleyukta daha pradhan madhyamaroga marga samanyaya vyadhi.

Ativyayam, Teekshna Aushadha, Atimadhayapana, Adhyashana and Ajirnaare main striking causes of Pittaja Mootrakruchra.

For Pittaja Mootrakruchra vishesa nidana are elicited from Mootrakruchra vyadhi nidana, and on basis of kriyakala vishesha samprapti can be drawn.

Pittaja Mootrakruchra can be compared to lower urinary tract infection.

The role of Krimias a causative factor of Pittaja Mootrakruchra is not been mentioned in classics.

In overall study the patients observed with Peetamootrata, Saruja, Sadaha, Kruchra, muhurmuhr mootrapravrutti and few of saraktamootra pravrutti.

The Dharvi churna and Arvarukbeejadi yoga they contain Pittavatashamaka and Mootra virechaniya drugs, so they acts as shodhana and shaman simultaneously.

As both drug having highly significant result in most of the lakshanas but compare to the Darvi churna, Arvarukbeejadi yoghas given better result in Pittaja Mootrakruchra.

Both the drugs are simple economical for patients and did not showed any adverse effects in present study.

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