

PHARMACO THERAPEUTIC STUDY OF FICUS RELIGIOSA (PEEPAL) AND CINNAMOMUM ZEYLANICUM (DALCHINI) W.S.R TO UTI CAUSED BY E COLI

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ABSTRACT

Ficus religiosa Linn (Bodddhi Tree) is commonly known as Peepal Tree. In Charak Sutrasthana, it is mentioned in Mutrasangrahaniya Dravya (Ch Su 4/33). It is also mentioned in Kasayaskandha (Ch Vi 8/144). It is mentioned in many important formulations for the cure of Mutrakrichha. The study was done on sixty patient. In each group there was 20 patient, group a was given kwath of bark peepal, group b given capsule of dalchini and group c was give both.

KEYWORDS: Ficus religiosa Linn (Bodddhi Tree) is commonly known as Peepal Tree.

INTRODUCTION

Ficus religiosa Linn (Bodddhi Tree) is commonly known as Peepal Tree. The stem bark of Ficus religiosa is an important ingredient in many medicinal formulations. In Charak Samhita there are many references of Peepal. In Charak Sutrasthana, it is mentioned in Mutrasangrahaniya Dravya (Ch Su 4/33). It is also mentioned in Kasayaskandha (Ch Vi 8/144). Pharmacognostical study deals with the detailed morphological study and macroscopical study of Ficus religiosa (Peepal or Bodddhi Tree) and Cinnamomum zeylanicum (Dalchini). These studies were carried out in RRI (C.C.R.A.S) unit of Lucknow.

The patients fulfilling the clinical criteria for diagnosis of UTI caused by E. coli were randomly selected from the OPD of Govt. Ayurveda College Hospital, Patna.

Inclusion Criteria

1. Patients of age group 16 to 60 years of age and willing for trial.
2. Laboratory investigation of urine suggesting UTI from Escherichia coli.

DISCUSSION AND RESULTS

Table 1: Effect of therapy on Urine Culture and Sensitivity of 20 patients of Group A.

Urine Examination	Mean Score BT	Mean Score AT	D	% Change	S.D ₊	S.D ₋	t	P
Urine culture and Sensitivity	2.2	0.65	1.55	70.45	0.76	0.17	9.13	<0.001

Preparation of the Trial Drugs

Yawakuta Churna of the bark of Ficus religiosa was prepared. The fine powder of the inner stem bark of Dalchini was prepared.

1. First group was of 20 patients who were given kwatha of 20 gm stem bark of Peepal BD is considered as Group A
 2. Second group was of 20 patients who were given 1gm of Dalchini BD is Group B
 3. Third group was of 20 patients who were given capsule of Dalchini and kwatha of Peepal is Group C
- Mode of administration: Oral
 - Duration of trial :90 days

Screening of antibacterial activity

With the help of Disc diffusion method the antimicrobial activity was performed. Special paper was used to make disc of 30mm. Paper disc were incubated in aqueous extract of bark of Ficus religiosa and Cinnamomum zeylanicum for overnight at room temperature and air dried before use in the experiments, all process was done following rules of sterilization.

Urine Culture And Sensitivity - The mean score of Urine Culture and Sensitivity was 2.2 before treatment which was reduced to 0.65 after treatment ,the observed change was 70.45% with $P < 0.001$ which was statistically highly significant.

Table 2: Effect of Therapy on Urine Culture and Sensitivity of 20 patients of Group B.

Urine Examination	Mean Score BT	Mean Score AT	D	% Change	S.D _±	S.E _±	t	P
Urine Culture & Sensitivity	1.4	0.75	0.74	48.87	0.75	0.17	3.98	<0.001

Urine Culture And Sensitivity - The mean score of Urine Culture and Sensitivity was 1.4 before treatment which was reduced to 0.75 after treatment, the observed change was 48.87 % with $P < 0.001$ which was statistically highly significant.

Table 3: Effect of therapy on Urine Culture and Sensitivity of 20 patients of Group C.

Urine Examination	Mean Score BT	Mean Score AT	D	% Change	S.D _±	S.D _±	t	P
Urine Culture & Sensitivity	2.35	0.55	1.8	76.59	0.83	0.19	9.66	<0.001

Urine Culture and Sensitivity - The mean score of Urine Culture and Sensitivity was 2.35 before treatment which was reduced to 0.55 after treatment. The observed change was 76.59 % with $P < 0.001$ which is statistically highly significant.

SUMMARY AND CONCLUSION

1. The present study revealed that the aqueous extract of bark of *Ficus religiosa* (Peepal) and *Cinnamomum zeylanicum* (Dalchini) has antimicrobial activity
2. Along with the antimicrobial activity Dalchini has diuretic property which favours in the treatment of the disease. Urine Culture and Sensitivity test carried at Department of Microbiology, Patna Medical College Hospital, under the guidance of my Co-guide Dr. Shankar Prakash M.B.B.S, MD; Prof & Head Deptt of Microbiology proves the fact that *Ficus religiosa* (Peepal) and *Cinnamomum zeylanicum* (Dalchini) has antibacterial activity so very effective in the treatment of *Escherichia coli* infection.
3. Aqueous extract of Peepal and Dalchini is very effective in the treatment of *E. coli* infection.
4. There was no side effect observed in patients. Having analysed the result on statistical parameters, we can conclude that Peepal and Dalchini are highly effective for the treatment of *Escherichia coli* medicine. *Ficus religiosa* and *Cinnamomum zeylanicum* are the drugs mentioned in almost all the Ancient literature and has a bright future for the treatment of urinary tract infection caused by *E. coli*.

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