

Homoeopathic Medicine ‘*Cantharis 30CH*’ Substituted Antibiotic: A Case Report of Infantile Urinary Tract Infection.

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ABSTRACT

Introduction: *Cantharis* is not an uncommon homoeopathic remedy for Urinary Tract Infections (UTI), but this case was unique as it was a case of rapidly progressing acute UTI. The patient was a 4-month-old infant and the pediatrician of modern medicine had already suggested that administration of antibiotics was the only way of treatment, but *Cantharis 30CH* could cure the case, within a short period.

Case Profile: The four-month-old male baby presented on 5th Jan.2018, with the symptoms of: incessant crying, especially more before and while urinating; irritability and total loss of appetite. The routine and microscopic examination (RE&ME) of urine done on 4th Jan. 2018 showed plenty of leucocytes and subsequent culture of urine sample collected on 5th Jan. 2018 revealed growth of *E.coli* >100000 CFU/ml. So the case was a confirmed case of UTI. The parents first visited an allopathic pediatrician on 4th Jan.2018 and he prescribed antibiotics and advised to start immediately, but the parents were reluctant to give antibiotics to their 4-month-old baby, so they visited our OPD and requested for homoeopathic treatment. After thorough case taking and analysis, *Cantharis 30CH* was selected; it was advised to dissolve one globule in the breast milk and give thrice daily. There was significant improvement of symptoms within 3 days; microscopic examination of urine showed decrease in leucocytes and there was complete disappearance of all symptoms within 6 days.

Conclusion: It can be concluded from the case report that a well-selected homoeopathic similimum, in right potency and dosage can cure awful cases of *E.coli* infections even in infants and can replace antibiotics and save the little ones from the adverse effects of antibiotics. Clinical trials on the efficacy of *Cantharis* on infantile UTI are suggested.

KEYWORDS: Urinary tract infection, Infants, Homoeopathy, *Cantharis*

INTRODUCTION

After respiratory and gastrointestinal infections, urinary tract infections (UTI) are the third most common infections experienced by humans. UTIs are classified as Lower and Upper UTI. Cystitis and Urethritis are lower UTIs whereas upper UTI includes pyelonephritis.(1) The incidence of UTI varies from infancy to old age.(2) Around 1% of boys and 3% of girls develop UTI during childhood and around 50% of women have a history of at least one episode of UTI. (3) Male infants have a relatively higher incidence of UTI, reflecting congenital abnormalities. A male child with recurrent UTI should be studied for intravenous pyelography and micturating cystourethrography to rule out congenital bladder neck obstruction and vesicoureteric reflux.(2) The commonest organism of UTI is *E.coli*; these are the gram-

negative, gut organism. (3) More than 90% of acute UTI in children is by *E.coli* and 80% of the first instance of UTI is due to *E.coli*. (4) Classical symptoms of UTI are usually not seen in pediatric practice, so there is a considerable problem in the diagnosis of UTI, especially in the younger patients. Clinical features of UTI in childhood are often different from those found in adults. UTI can occasionally produce life-threatening illness, especially in very young infants, who may present severely with shock and septicaemia. Though UTI is a common problem, there is no established consensus on investigations and management in childhood.(5) UTIs are one of the major causes of antibiotic usage and antibiotic resistance.(1)High recurrence rates and increasing antimicrobial resistance threaten to greatly increase the economic burden of these infections.(6) Also

administration of antibiotics to children before the age of two increases the risk of obesity,(7) which in turn may lead to different lifestyle disorders in future.

Homeopathy is a system of therapeutics basing upon the *law of similia*, which states that a drug, capable of producing in a healthy person a diseases state exactly similar to that observed in a diseased person, acts as a curative agent if the disease is in a curable state.(8) This system provides efficient solution for many diseases with cost-effective medicines.(9,10) Also Homeopathy pills being very palatable for children can be real solution for various pediatric problems including infantile UTI.(11) Homeopathy is considered as the ideal treatment option for infants owing to the safety of homeopathic medicines. Homoeopathic medicines work by strengthening a child's immunity. Along with relieving common acute problems of children it can prevent recurrent episodes of ill-health.(12) *Cantharis vesicatoria* is a widely used homeopathic medicine from animal kingdom, prepared from the Spanish flies. These flies are commonly found in Spain, Italy, Hungary, Russia and India. To prepare the medicine, the flies are killed by exposing them to fumes of boiling vinegar, then they are dried and powdered. The powdered flies are triturated with sugar of milk or mother tincture is prepared in alcohol. Higher potencies are prepared from trituration or mother tincture.(13) The main spheres of action of this drug are urinary and sexual organs.(14) It produces violent, acute, rapidly destructive inflammation of mucous membranes of these systems, when administered on healthy individuals. Its action is rapid and intense.(15) It is a very common and widely used homeopathic medicine for UTI. According to Farrington, in acute cystitis, *Cantharis* is indicated more frequently than all other remedies put together.(16) In vitro experimentation(17) and mice model animal experiment(18) have also proved the efficacy of *Cantharis* on *E.coli*. But sufficient numbers of clinical trials are lacking to establish the efficacy of *Cantharis* in infantile UTI.

In this context, the main objective behind this case report was to experiment the action and efficacy of *Cantharis* in infantile UTI especially in regard to observing the speed of recovery, change of symptoms in regard to frequency, duration and intensity and change of laboratory parameters after administration of the intervention.

CASE PROFILE

A four-month-old male baby of an educated and higher economic status parents, from Bhubaneswar, Odisha, India visited our OPD at Dr A. C. Homoeopathic Medical College and Hospital, Bhubaneswar, Odisha, India on 5th Jan. 2018. The parents narrated that the baby was crying most of the time since 2-3 days, which was severe before and during urination. He was restless and irritable. The baby was not taking his food (mother's milk) properly. He had disturbed

sleep during these days. Regarding the birth history, the delivery of the boy was institutional and he was born through caesarian section after full term. His food was only breast milk. He had no previous history of any disease. He took vaccines as per immunization schedule. The urine investigation report of 4th Jan 2018 revealed presence of plenty of leucocytes and albumin in urine (Fig.1). Subsequent culture of urine sample of 5th Jan.2018 revealed growth of *E.coli* >100000 CFU/ml after 48 hours of incubation (Fig.2). So the case was diagnosed as UTI and the causative organism was *E.coli*. For this the parents had first visited the nearest paediatrician on 4th Jan.2018, who prescribed some antibiotics to start immediately. But the parents were reluctant to administer antibiotics to the small baby. So in search of some alternative therapy, they came to the hospital of this institute. On physical examination, the baby was thin, clinging to his mother. There was no fever; palpation of lower abdomen made the child to cry suggesting tenderness of bladder area; other parameters were normal. As this was an acute case of 4 month old infant and there was not much to elicit from the case, the acute totality was portrayed considering the following symptoms (Table-1).

Table-1 Presenting Complaints of the Patient

Sl. no.	Symptoms
1	Aggravation of pain before and during urination
2	Irritability
3	Loss of appetite
4	Incessant crying
5	Disturbed sleep

The suffering of the small baby and the anxiety of the parents demanded a speedy recovery of the case. So considering the acute totality, sphere of action and important modality, i.e. aggravation of pain before and during urination, *Cantharis* was selected as the single individualized medicine. It was prescribed in the 30th centesimal potency, one globule dissolved in the mother's milk to be administered thrice daily. Parents were advised to continue the medicine for 3 days without any interruption.

FOLLOW-UP & OUTCOME

After completion of three days of medication, the parents came for follow up on 8th Jan.2018. There was significant decrease of the symptoms, irritability reduced, food intake improved, crying reduced and sleep improved, but occasional crying during urination was there. The urine report of 8th Jan. 2018 showed that there was no albumin and number of leucocytes reduced to 10-15 (Fig.3). Since there was significant improvement of symptoms but the patient had some complaints of less intensity, it was decided to continue the same medicine in 30th potency, one globule thrice daily for a few more days. The parents were asked to

“Homoeopathic Medicine ‘*Cantharis 30CH*’ Substituted Antibiotic: A Case Report of Infantile Urinary Tract Infection”

come after 3-4 days with urine report and to continue the medicine till that time. They turned again after 4 days on 12th Jan. 2018; there was no unusual crying, no irritability, food intake was normal, sleep was normal. Urine report of 12th Jan. 2018 showed absence of leucocytes (Fig.4). The recovery was full and complete. The parents were utmost

happy as their child recovered without the administration of antibiotic. There were no adverse events during the process of treatment; instead, the improvement of symptoms was steady in regard to frequency, intensity and duration. Also, there has been no recurrence of the symptoms till date.

TIMELINE

Table 2. First prescription and Follow-up

Date	Symptoms	Investigation Reports	Medicine Prescribed
5 th Jan. 18	Incessant crying, especially more before and while urinating. Irritability. Food intake much reduced. Disturbed sleep, 8-9 hours.	Urine report- Epithelial cells 2-4. Leucocytes- Plenty. Albumin-present. Urine culture report- Growth of <i>E.coli</i> >100000 CFU/ml.	<i>Cantharis 30CH</i> , one globule thrice daily.
8 th Jan. 18	Crying reduced. Irritability reduced. Food intake improved. Sleep improved, 8-10 hours. Occasional crying during urination.	Urine report- Albumin-Nil. Epithelial cells 1-2. Leucocytes- 10-15.	<i>Cantharis 30CH</i> , one globule thrice daily.
12 th Jan. 18	No unusual crying. No irritability. Food intake normal. Sleep normal, 12-14 hours.	Urine report- Albumin-Nil. Epithelial cells 1-2. Leucocytes- Nil.	No medicine

**DR. ABHIN CHANDRA HOMOEOPATHIC
MEDICAL COLLEGE & HOSPITAL, KHARAVEL NAGAR
UNIT-III, BHUBANESWAR-751001**

Name: Nivyaan Parida
Age: 4 months 11 weeks Date: 4/11/18

URINE

Pregnancy Test-Positive/Negative
RE/MICRO/OTHER

GROSS Colour: Yellowish Deposit: (+)
Sp.gr: Reaction: Acidic

CHEMICALS

Sugar (Qual) - Nil
Quant -
Albumin - Present (+)
Phosphates - Nil
B.J. Protein -
Chyle -
Ketone bodies -
Urobilinogen -
Bile Salt -
Bile Pigment -

MICROSCOPIC
(Centrifuged deposit)

Epithelial Cells 2-4
Leucocytes - Plenty
R.B.C.
Casts
CRYSTAL Nil
M.F. / T.V. Nil

04.11.18
PATHOLOGIST

LAB. TECH.

Fig.1 Urine Report (RE&ME) before treatment

JAGANNATH HEALTH CARE
Plot No.: 185-P, Saheed Nagar, Bhubaneswar, Odisha.
Ph. No.: 0674-2545575, 2545576, Fax: 0674-2545574

PATHOLOGY REPORT

Regd No: JHOP05011812
NAME: NIVAAN PARIDA
REF. BY: DR. S. DAS

DATE: 07/01/2018 TIME: 10.30 AM
AGE: 4 MONTHS SEX: MALE

URINE CULTURE REPORT:

- Heavy growth of *Escherichia coli* in culture after 48 hours of aerobic incubation.
- Clinically significant colony count of more than 100,000 CFU/ml.
- Significant bacteriuria.
- SENSITIVE TO CEFIXIME.**

Interpretation of Counts:
The following is offered as a guide for midstream clean catch urine.

<1000 CFU/ml	INSIGNIFICANT bacteriuria; UTI-unlikely
1000- 100,000 CFU/ml	1000- 100,000 CFU/ml; PROBABLY SIGNIFICANT bacteriuria; UTI probable
> 100,000 CFU/ml	SIGNIFICANT bacteriuria; UTI certain

CFU= COLONY FORMING UNIT.

For SPC, PCN and Cystoscopic specimens, any CFU is significant irrespective of number.

07/01/18
Dr. PRATIBHA SAMANT ROY
M.D. Clinical Microbiology,
CMC, VELLORE.
CONSULTANT MICROBIOLOGIST

(Report not valid for Medico-legal purpose) Signature

CONDITIONS OF REPORTING:

- Result of test may vary from laboratory to laboratory and also in some parameters from time to time for the same patient
- Should the results indicate an unexpected abnormality, the same should be reconfirmed.

Fig.2 Urine Culture Report before treatment

“Homoeopathic Medicine ‘*Cantharis 30CH*’ Substituted Antibiotic: A Case Report of Infantile Urinary Tract Infection”

DR. ABHIN CHANDRA HOMOEOPATHIC MEDICAL COLLEGE & HOSPITAL, KHARAVEL NAGAR UNIT-III, BHUBANESWAR-751001	
Name:	<u>Naveen Parida</u>
Age:	<u>4 months 10 days</u>
Date:	<u>8/11/18</u>
URINE	
Pregnancy Test-Positive/Negative RE/MICRO/OTHER	
GROSS	Colour: <u>Yellowish</u> Deposit: <u>Nil</u> Sp.gr: Reaction: <u>Acidic</u>
CHEMICALS	Sugar (Qual) - <u>Nil</u> Quant - <u>Nil</u> Albumin - <u>Nil</u> Phosphates - <u>Nil</u> B.J. Protein - Chyle - Ketone bodies - Urobilinogen - Bile Salt - Bile Pigment -
MICROSCOPIC (Centrifuged deposit)	Epithelial Cells <u>1-2</u> Leucocytes <u>10-15</u> R.B.C. Casts CRYSTAL <u>Nil</u> M.F. / T.V.
LAB. TECH.	PATHOLOGIST

Fig.3 Urine Report (RE&ME) during treatment

DR. ABHIN CHANDRA HOMOEOPATHIC MEDICAL COLLEGE & HOSPITAL, KHARAVEL NAGAR UNIT-III, BHUBANESWAR-751001	
Name:	<u>Naveen Parida</u>
Age:	<u>4 months 10 days</u>
Date:	<u>12/11/2018</u>
URINE	
Pregnancy Test-Positive/Negative RE/MICRO/OTHER	
GROSS	Colour: <u>Yellowish</u> Deposit: <u>Nil</u> Sp.gr: Reaction: <u>Acidic</u>
CHEMICALS	Sugar (Qual) - <u>Nil</u> Quant - <u>Nil</u> Albumin - <u>Nil</u> Phosphates - <u>Nil</u> B.J. Protein - Chyle - Ketone bodies - Urobilinogen - Bile Salt - Bile Pigment -
MICROSCOPIC (Centrifuged deposit)	Epithelial Cells <u>1-2</u> Leucocytes <u>Nil</u> R.B.C. Casts CRYSTAL <u>Nil</u> M.F. / T.V.
LAB. TECH.	PATHOLOGIST

Fig.4 Urine Report (RE&ME) after treatment

DISCUSSION

UTI is a common disease of all age groups but its management in newborns or infants becomes more challenging due to lack of symptoms, non-specific symptoms or difficulty in eliciting the symptoms. The commonest way to treat a UTI in the modern school of medicine is through antibiotics. But the adverse effects of

antibiotics and emergence of antibiotic resistance are now a real challenge in the field of medicine especially in developing countries like India, and it also exerts a negative effect on progressing economy. Apart from other adverse effects, administering antibiotics in an earlier age also increases the risk of obesity, which may lead to different lifestyle diseases in future.(7) As per literature, 1% of boys can develop UTI during their childhood and this is one of such cases. The revelation of *E.coli* as the causative organism in this case also corroborates with the available literature that more than 90% of acute UTI in children and 80% of the first instance of UTI are due to *E.coli*. In this case, the parents preferred Homeopathy over antibiotics. The case was approached simply by selecting the remedy on the basis of acute totality, the sphere of action and important modality ‘aggravation of pain before and during urination’. *Cantharis*, one of the leading homoeopathic medicines for urinary tract infections as per homoeopathic literature emerged as the prominent medicine and it was selected and administered. Disappearance of symptoms and complete recovery of the baby in the short span of time justifies the selection of *Cantharis* and proves its efficacy, and also confirms the golden words of Farrington that *Cantharis* is indicated more frequently than all other remedies put together in acute cystitis.(16) The case of a 4-month-old baby, the absence of any other prominent symptoms and demand for a speedy recovery were the main challenges in this case.

CONCLUSION

Although non-specific symptoms of infantile UTI may be a challenge to treat, proper selection of remedy can lead to a rapid, gentle and permanent cure. In this particular case, when *Cantharis* was selected on the basis of acute totality, sphere of action and important modality, the disappearance of symptoms occurred and there was complete cure. This further suggests that it can be a very good remedy for infantile UTI, and also can avert the use of antibiotics. Thus, Homeopathy can be a better option for the treatment of cases of infantile UTI, which can prevent or replace the early use of antibiotics in these cases. Homeopathy has also been found effective in the treatment of other urological disorders like Urolithiasis and Benign Prostate Hyperplasia. (19–23) Randomized controlled trials to evaluate the efficacy of *Cantharis* in infantile UTI with a suitable sample size are suggested.

INFORMED CONSENT

The parents of the patient provided written informed consent for use of the investigation reports and publication of the case report.

CONFLICT OF INTEREST

The authors declare that there is no conflict of interest.

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