



Review Article

# Homeopathic Approach to the Management of Recurrent Urinary Tract Infections

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## Abstract

Recurrent Urinary Tract Infections (RUTI) affect nearly 10% of women, significantly damaging their quality of life and inducing major health costs. Successive antibiotic therapies disrupt the saprophytic flora, select germs and promote the emergence of antibiotic resistance. Homeopathy, a medical therapy devoid of major side effects, presenting no risk of overdosing, addiction or interference with conventional treatments, could represent a complementary approach to conventional treatments in an integrative methodology. Certain in vitro and in vivo studies suggest that Colibacillinum and Cantharis would be medicines best suited for the curative and preventive treatment of RUTI. However, most publications of clinical cases of RUTI, which were successfully treated with homeopathy, report the need to individualise homeopathic treatment according to each patient rather than their disease. The objective of this article is to describe the homeopathic approach necessary to obtain the best therapeutic results on RUTI. The main homeopathic medicines are detailed. Particular importance is given to the discovery and treatment of the chronic reaction mode of each patient. Taking into account the triggering factors of the urinary tract infection, the symptoms, whether local, general, concomitant or even psychological, will enable us to choose the most suitable homeopathic medicine. A controlled and randomised clinical study of homeopathy versus placebo of RUTIs is quite feasible provided that the randomisation is carried out after individualisation of the treatment by an experienced homeopathic doctor.

**Keywords:** Cantharis; Chronic reaction mode; Colibacillinum; Complementary and integrative medicine; Individualised homeopathy; Recurrent urinary tract infections.

## Introduction

Urinary Tract Infections (UTI) are the third most frequent source of infection after respiratory and gastrointestinal infections [1]. They are the consequence of a systemic bacterial infection caused in 85% of cases by *Escherichia coli* (*E. coli*) [2]. Due to their anatomy (short urethra) and physiology, women are much more commonly affected than men. Fifty to sixty per cent of them will have a UTI at least once in their life [3], and it is estimated that 12% of women suffer from Recurrent Urinary Tract Infection (RUTI) [4], i.e. presenting 3 or more infections per year [5]. Beyond the economic consequences, there is the problem of the reduced effectiveness of antibiotic treatments in the face of the recurrent nature of the disease, the imbalance of the saprophytic flora and the selection of antibiotic-resistant strains [6]. Although subject

to numerous medical controversies, homeopathy is the most frequently prescribed complementary and integrative medicine in France [7] and is used by nearly 400 million people worldwide [8]. It uses ultra-diluted medicines [9], composed of substances which, in toxic doses, produce in healthy subjects symptoms identical to those presented by the patient. In doing so, it responds to the principle of treatment by similars and not by opposites, “like cures like”. Homeopathy is very safe to use since it does not cause any notorious side effects [10]. It presents no risk of overdose, addiction or interference with conventional treatments [10].

## Methodology

After a complete review of the literature on the subject and explanation of the homeopathic therapeutic method, we propose in this article to describe the use of homeopathy in the management of recurrent urinary tract infections, according to our clinical experience.

## Literature Review

The search engines used in the literature search for this study are Google scholar and PubMed. A blind, randomised, placebo-controlled study investigated the effects of one of the most commonly used symptomatic homeopathic medicines in acute cystitis: Cantharis in a dilution of 6c ( $10^{-12}$ ), on cystitis induced by *E. coli* in an experimental model in female BALB/c mice [11]. Cantharis 6c increased the concentrations of IL12, IFN- $\gamma$  and IL10 in the bladder fluid ( $p \leq 0.05$ ). In the bladder mucosa, it increased the ratio between B and T lymphocytes (31%) and between B lymphocytes and MIF+ macrophages (57%,  $p \leq 0.05$ ). In the pelvis, on the contrary, it decreased the ratio of B/T cells (41%,  $p \leq 0.05$ ) and increased the ratio of M1/M2 macrophages (42%,  $p \leq 0.05$ ). These inverted results of inflammatory cells and cytokines in the mucosa of the bladder compared to those of the pelvis reflect a local immune modulation specifically induced by Cantharis 6c in mice infected with *E. coli*.

The action of Cantharis is also underlined by a clinical case published in 2018, concerning febrile *E. coli* cystitis in a 4-month-old child, successfully treated with Cantharis 30c, three times a day. Complete disappearance of symptoms and leukocyturia was achieved in 7 days without antibiotics prescription [12]. In an in vitro study, a Colibacillinum strain, made from a culture of *E. coli*, in D6 ( $10^{-6}$ ) effectively modulated the release of cytokines of the innate and humoral immune system [13]. Still in vitro, a strain of uropathogenic *E. coli*, isolated from a snow leopard which died of sepsis secondary to necro-haemorrhagic cystitis, was incubated with different homeopathic medicines [14]. The results show a significant reduction in bacterial growth when using the strain of pathogenic *E. coli* (Colibacillinum) in 12c and Mercurius solubilis 12c, medicines chosen because of the similarity of the other physical symptoms presented by the snow leopard (principle of individualisation). This in vitro study suggests the benefit of combining the isotherapeutic Colibacillinum with the individualised homeopathic medicine.

There are no homeopathic therapeutic “recipes” for treating RUTI. This is, in any case, what two studies suggest respectively presenting 3 and 4 clinical cases [15,16]. Homeopathic medicines are different each time for each case and have been chosen after individualising the symptoms, both urinary and general (physical and psychological) of the patients. The results were favorable for the 7 cases which were presented. An interesting prospective, pragmatic and randomised study was carried out in 2019 in a Swiss functional rehabilitation center [17]. It included 35 patients with chronic neurogenic dysfunction of the lower urinary tract presenting at least 3 episodes of infection per year. Ten patients were treated with a standardised prophylaxis alone (control group), the 25 others benefited in addition from an individualised homeopathic treatment. The median number of UTIs in the homeopathy group

decreased significantly ( $p < 0.0001$ ), while it remained unchanged in the control group. The impact on incontinence improved significantly ( $p = 0.035$ ). Satisfaction with homeopathic care was rated high. This study, whose number of participants should be larger, nevertheless suggests that homeopathic treatment in combination with conventional preventive care, leads to a significant reduction in recurrent urinary tract infections in patients with spinal cord injury.

From these various publications, we note that

1. The published clinical cases were carried out with individualised homeopathic medicines, chosen according to the symptoms specific to each patient and not according to the clinical diagnosis.
2. The experimental efficacy in vitro and in vivo on colibacillus cystitis of homeopathic preparations of Cantharis and Colibacillinum should encourage further research in this direction.
3. Controlled and randomised clinical studies should now be carried out.

## Methodology of The Homeopathic Approach

Given the frequency of recurrences of colibacillus infection encountered in some patients, it was very quickly suspected that there were contributing factors linked to the patients themselves. We speak of a favorable terrain. While it is of course necessary to look for contributing factors in the drop in immunity, hormonal disorders, imbalances of the saprophytic flora or local anatomical anomalies, homeopathic doctors will also look for additional elements specific to the terrain of each patient. To establish their therapy, homeopathic doctors will take into account the similarity of the symptoms but also the Chronic Reaction Mode (CRM) of the patient in the face of disease. There are 4 such reaction modes: psora, sycosis, tuberculinism and syphilis, each reflecting a characteristic and particular evolution of chronic diseases.

## Medicines For Psoric Reaction Mode

The psora is the first model of CRM [18]. It is schematically characterised by conditions with a sudden, frank onset, with specific symptoms, a clear end and a return to normal after recovery. On the other hand, recurrences are the rule, following a periodic rhythm, despite apparently well-chosen treatments. These real outbreaks appear more easily in winter because they are aggravated by the cold. The patient's condition improves in the summer with the heat. Febrile outbreaks, sometimes significant, accompany infectious events. Any process of elimination (vomiting, diarrhoea, sweating, rash, discharge, even when haemorrhagic), will lead to a natural improvement of the patient's condition. This way of reacting to the disease, proceeding by centrifugal reactions, is in fact the natural and usual way to fight against a disease. It has specific local and

general symptoms. The first signs in the history of psorics will often be a skin condition with a rash, which will have disappeared after external treatment.

*LYCOPodium* is the medicine for patients with liver and kidney function disorders affecting metabolism. It is able to rebalance a disturbed biliary function often responsible for colibacillosis. Disorders will also concern the level of urea, creatinine, lipids, and uric acid. It concerns the whole body and covers practically all pathological situations; it affects all reaction modes but particularly the psoric CRM. The patient is fond of sweets, very constipated, with bloating of the lower part of the abdomen. Symptoms are aggravated from 4 p.m. to 8 p.m. and by a sedentary lifestyle. Movement in the open air and hot drinks improve them. Lycopodium is especially indicated in authoritarian, active patients, lacking in confidence, very irritable and unable to bear being challenged. In the event of an infection, they may present with back pain before urinating, a general chill at the end of urination, dark and odorous urine.

*PSORINUM* is both the biotherapeutic of the psoric mode and a great medicine of general action. It corresponds to patients who feel the cold, who fall ill from the cold in winter and whose condition improves markedly in summer in hot weather. They are easily sad, anxious and desperate at not getting better. A striking feature is their strong appetite which they maintain even during illness, with often nocturnal hunger. Eating, even a little, always improves their symptoms. Their pathology is above all cutaneous, with rashes of all kinds and pruritus that the heat of the bed aggravates. Their neglected appearance and the bad smell they give off do not invite sympathy. A urinary tract infection occurs quickly but the symptoms are in no way characteristic. An improvement in constipation which may surprise is noted. We must also think of this medicine when other medication, although apparently well chosen, has not brought about any improvement. *SULPHUR* is the emblematic drug of the psoric reaction mode. If Psorinum corresponds to the subjects most sensitive to the cold, Sulphur is on the contrary for those intolerant to heat in all its forms. Both can however be indicated in case of RUTI. With Sulphur we will have more pressing needs to urinate at night, with a burning sensation while urinating, cloudy urine covered with a thin oily film. Finally, the skin is quickly irritated if it remains in contact with urine, which is frequent because of the approximate hygiene of subjects of the Sulphur type.

*BENZOICUM ACIDUM* is close to Lycopodium which it complements. It is a medicine for uricaemia complicated by colibacillosis. Its symptoms are very characteristic, dominated by inflammatory joint pain (especially knees) often associated with fever, diarrhoea with strong smelling liquid stools. The urine is very heavy and with a strong smell when joint pain improves and vice versa. It is a psoric and sycotic CRM medication.

*ALLIUM CEPA* is the medicine that responds best to the “cystitis following sexual intercourse” causality. There is a strong pressure on the bladder, reddish urine and a strong burning in the urethra, all appearing a few hours after intercourse. This medicine is very reliable and effective in acute episodes. It will be reinforced in its action by other psoric medicines such as Sulphur, *SEPIA OFFICINALIS* or *Calcarea carbonica*.

### Medicines For The Sycotic Reaction Mode

Sycosis is the most commonly acquired CRM in adults [19]. It corresponds to people with chronic infections of progressive and insidious evolution, slow healing and frequent relapse such as is encountered in recurrent colibacillosis. The clinical picture is especially marked by recurrent bacterial infections, asthenia and benign tumour formations (warts, condylomas, cysts, lipomas, fibroids). It is favoured by chronic conditions generally beginning in the ENT or urogenital sphere, by repeated antibiotics, chemotherapy, and hormone therapy. It corresponds to patients with mental disorders of the obsessive type with *idées fixes*. The affections are often the consequence of the spontaneous (infection) or provoked (injection) introduction of a foreign protein in the body. They are at the origin of a reaction of the specific immune system and the formation of circulating immune complexes, source of chronicity.

*THUYA OCCIDENTALIS* emblematic medicine of the sycotic reaction mode, it is very common in patients with colibacillosis. It is one of the main medicines for recurrent genitourinary diseases. Damp cold is a favorable circumstance as well as poly medication. The patient describes a sensation of dripping urine, intermittent urination with sharp, cutting pain at the end of urination, and strong-smelling urine. There may also be associated urethral or vaginal discharge.

*MEDORRHINUM* is the biotherapeutic for sycosis and reinforces the action of Thuya. Deep lower back pain is common, improved by profuse urination, nocturnal urinary incontinence is possible, as well as a past history of gonorrhoea.

*DULCAMARA* is indicated if the onset of an acute attack follows exposure to damp cold. There is mucous in the urine and a frequent and painful need to urinate.

*SEPIA OFFICINALIS* is certainly the medicine most frequently indicated in *E. coli* RUTIs. Hormonal dysfunctions are often the cause, whether during pregnancy or peri-menopause. The patient may present with marked lower back pain, a sallow complexion, a feeling of emptiness in the stomach or pelvic ptosis. Patients try to lie down and self-isolate. They very much feel the cold and yearn to consume acidic foods. There may be portal congestion with constipation and protruding hemorrhoids. They feel constant pressure on the bladder with urgent need to urinate fetid urine sometimes with red sediment. *SEPIA* is also a

medicine for genital and cutaneous mycosis and genital or labial herpes. Cystitis deeply affects the mood of patients who present a depressive state but do not accept being comforted. Physical exercise improves many of their symptoms.

*NITRICUM ACIDUM* another great medicine for sycotic CRM, it is used for dark urine, smelling like horse urine with a feeling of coldness in the urethra during urination. The anus is frequently the seat of very painful hemorrhoids, warts, condylomas, ulcerations or fissures. All these lesions are easily haemorrhagic. Patients are very irritable and do not accept any contradictions.

*STAPHYSAGRIA* has as its main etiology the “consequences of upset or vexation”. It is also the remedy for “honeymoon cystitis”. There is a sharp burning sensation in the urethra between urinations, which ceases only when urinating. There is a constant need to urinate.

### Medicines for The Tuberculinic Reaction Mode

Tuberculin CRM is very common in children and adolescents. It follows a family history of tuberculosis, BCG vaccination or repeated antibiotic therapy for recurrent ENT disorders [20]. There is a great emotional sensitivity and lability which conditions most of the morbid affections of these patients. This is the reaction mode most often involved in colibacillosis.

*PULSATILLA* is one of the main medicines for tuberculin CRM. In these patients, the symptoms are essentially mild and varied. A great sensitivity especially as regards affections dominates their whole life which is focused on their desire to be liked. The slightest suffering needs to be comforted. Their health depends a lot on maintaining regular physical activity, as it improves their venous circulation which is very easily slowed down by heat. One of the factors favoring urinary tract infection is insufficient thirst generating low diuresis. They easily catch cold thus facilitating cystitis. The tuberculin reaction mode weakens their resistance to coli bacteria. Symptoms are rarely very acute, often neglected and evolving quietly.

*NATRUM MURIATICUM* is the second great medicine of tuberculinic patients. They present with severe constipation with hard stools causing anal constriction. They paradoxically have a strong thirst for large amounts of water at long intervals. Their strong appetite contrasts with a general leanness that predominates in the upper part of the body. They have a marked desire for salt, a very dry tongue with areas of depapillation, headaches during intellectual efforts. They are often sad and withdrawn. Like Sepia, they refuse being comforted, and cystitis can occur as a result of grief or an emotional disorder. On the urinary level, the symptoms are also close to those of Sepia, with a feeling of heaviness on the bladder, more frequent urination at night, incontinence when coughing and laughing. Characteristic symptom of Natrum muriaticum: they cannot urinate if they know they are being watched.

### Medicines of The Syphilis Reaction Mode

The syphilis reaction mode corresponds to patients suffering from malformations or congenital diseases; lesions progressing to necrosis, ulcerations, degeneration, psychiatric disorders, autoimmune diseases, neoformations and malignant transformations. When this MRC concerns a patient infected with colibacillus, we will often find more serious, more difficult to treat situations, with more organic complications.

*MERCURIUS SOLUBILIS* and its salts begin our look at the syphilis mode. Inflammation of the bladder and urethra occurs in two to three days, there is burning at the beginning of urination with little urine. Pyuria and haematuria are quickly observed. The infection can be easily ascending and reach the renal pelvis, or even the kidney. If the symptoms are very acute, *MERCURIUS CORROSIVUS* will preferably be prescribed.

*SILICEA* characterizes situations of reduced immunity, with great sensitivity to all infections, particularly urinary ones. Medicine for psora (close to Psorinum), sycosis (close to Thuja and Penicillinum), tuberculinism (close to Natrum muriaticum and Sepia) and syphilis (close to Mercurius), it is often indicated in recurrent colibacillosis. It is characterised by physical and psychological asthenia, general weakness, anorexia, weight loss. It corresponds to severely constipated, very chilly patients with frequent headaches and sweating of the head and feet. The urinary tract infection quickly produces pyuria with very cloudy urine and incontinence.

### Importance of Etiological Factors

In addition to the CRMs, we must also take into account the etiological factors identified in the past history, factors which lead to recurrences (very cold weather, wet weather, phases of the menstrual cycle, sexual intercourse, upsets, etc.). The psychological changes caused by the disease will also be taken into account irritability, anxiety, depressive tendencies, memory disorders, general signs (asthenia, febrile episodes or persistent fever), local functional signs (urinary, intestinal, joint symptoms, biological signs).

### Symptomatic Medicines

The description of urinary symptoms corresponding to homeopathic medicines reported below relate to objective signs obtained by questioning the patients and examining their urine, which conventional medicine has less need to do, as it uses laboratory tests and the prescription of antibiotics showing sensitivity on the antibiogram. One must mention here the importance of this part of the examination which can bring valuable information for the individualised homeopathic prescription. *CANTHARIS* is the best known of the cystitis drugs. The burning sensation dominates the symptoms. It exists before, during and after urination. Little urine

is passed, haematuria frequent. There may be concomitant sexual arousal with violent erections in men. It is a psoric drug, essentially targeting acute cystitis.

*SARSAPARILLA* is preferentially indicated in cases of urinary tract infection extending to the **right kidney** often associated with lithiasis problems as for *Lycopodium*. Bladder pain is intolerable, especially at the end of urination. Patients urinate better standing, sitting is impossible for them. Faced with this indication, it is necessary to eliminate cancer of the urinary tract or the prostate. It belongs to syphilis MRC, but also to sycosis and psora.

*FORMICA RUFA*, the red ant, is rich in formic acid. It is a great drug for uricaemia and colibacillosis with many associated joint and digestive symptoms. The patient is very tired and experiences paralysing weakness in the lower extremities, has many varied joint pains, appearing suddenly. Headaches are heavy with dizziness. The patient can describe pain while combing their hair (keynote). There can also be nausea, putrid diarrhoea in the morning on getting up and after breakfast as for *Natrum sulphuricum*. Polyuria is cloudy, foul smelling with possible haematuria. It is a medicine for psora and sycosis .

*EQUISETUM*, horsetail, is a medicine for bladder infection with pain in the renal region which tends to be on the right side. The need to urinate is urgent and frequent, for only a few drops. The patient is better lying down (keynote).

*CHIMAPHILLA* closely resembles Sarsaparilla. It is aimed at the same three CRMs. Here also the infection can extend to the kidneys. There is a very frequent need to urinate. Urination is easier standing up, leaning forward with both hands resting on the wall. Urine is evacuated in several spurts, with effort. It may contain thick, stringy mucus and sometimes be bloody. In a seated position, the patient may experience swelling of the perineum. With this drug it is also necessary to think of eliminating the possibility of cancer.

*BERBERIS* is a great antipsoric medicine. It has a marked tropism for liver, kidney and skin. It is considered, with *Chelidonium* and *Solidago*, as a universal drainer widely used in urinary pathologies, especially those affecting the **left kidney** and the bladder. It is a medicine for left renal colic. It is indicated in colibacillosis in cases of pain in the left lumbar fossa, a burning sensation during urination sometimes radiating to the hips while urinating (keynote). The patient sometimes complains of memory problems concerning episodes of his life. It is a good complement to *Lycopodium* .

*PAREIRA BRAVA* is useful for both bladder and prostate infections. Pain is very important as soon as the patient tries to urinate. It extends from the bladder to the thighs. The patient experiences a little relief only by squatting on their knees, with their head down (keynote). This position enables them with great

effort to release a little dark urine, containing blood and a lot of mucus. Its prescription facilitates the progression of lithiasis in the urinary tree. It is a drug of the psoric and sycotic mode .

*TEREBENTHINA* is indicated in urinary tract infections with bleeding from the mucous membranes of the bladder or urinary tract associated with frequent kidney pain, albuminuria and haematuria. The urine has an odor reminiscent of violets (keynote). In a colibacillary infection, it often corresponds to the ascending complication of a lower urinary tract infection.

## Biotherapeutic Medicines

A homeopathic medicine is called biotherapeutic when it is prepared from a secretion or excretion of an individual affected by an infection not yet treated with antibiotics. The product used for this preparation contains both the infecting germ, its toxin and the various players in the patient's immune system (cytokines, lymphocytes, antibodies, etc.). Biotherapeutics act as powerful immune activators against the causative infection. It can also be a good medicine for convalescing from the infection from which it originated.

*PSORINUM* and *MEDORRHINUM* have already been mentioned in the medicines corresponding respectively to psora and sycosis.

*PYROGENIUM* is classically used in situations of serious bacterial infection. Its keynote is the dissociation between pulse and temperature (slow pulse for high temperature). The secretions are purulent. The patient experiences muscle bruising type pains resembling those for which one would prescribe *Arnica*. The tongue is very red as if glazed. There is very smelly diarrhoea.

*COLIBACILLINUM* is prepared from a culture of colibacillus. It is an essential drug for most colibacillary infections. It is mainly indicated in the presence of general symptoms of asthenia, memory loss or intellectual difficulties. There are digestive disorders, cloudy and smelly urine, joint pain. Its action is very clear on the general condition of patients with chronic colibacillosis.

*ANTICOLIBACILLAIRE SERUM* is a medicine used almost systematically by many homeopathic doctors in the presence of a urinary tract infection, in low potency (D4 to D8) whatever the type of bacteria and the place of infection. In high dilution (9c to 30c) it leads to, as for *Colibacillinum*, an improvement of the general and intellectual condition of the infected patients.

*TUBERCULINUM*. We have already indicated the relationship that exists between chronic colibacillosis and the tuberculin reaction mode. The administration of *Tuberculinum* finds its justification in the overall strategy for the treatment of recurrent urinary colibacillosis when this MRC is involved.

*LUESINUM* is the biotherapeutic for the syphilis CRM. It is indicated in more serious, more lesional cases, with superinfections

and suppuration. Clinically, we recall that the symptoms are worse at night and by the sea.

### Limitations of this study

This article is a theoretical presentation of homeopathic practice in urology and does not in any way constitute proof of its effectiveness. Our objective is to share our clinical experience with the curious reader to discover the homeopathic method and to use it to the treatment of RUTI.

Clinical cases are missing. They will be the subject of a second article.

### Recommendations and Conclusion

Although certain in vitro and in vivo studies show that *Cantharis* and *Colibacillinum* give encouraging results, it would be illusory and above all ineffective to consider it to be a recipe for the treatment of RUTI. Our clinical experience shows, like the various clinical cases published in the literature, that homeopathic treatment to gain in effectiveness must be individualised. Faced with the recurrent and chronic nature of the disease, the homeopathic approach to the treatment of RUTI will require taking into account the triggering factors of the infection, all the physical and psychological symptoms (local, concomitant or general) and the chronic reaction mode. It is now necessary to carry out randomised clinical studies on the homeopathic treatment of RUTI, taking care to carry out the randomisation after individualisation of the treatment by the homeopathic doctor.

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