CLINICAL PAPER

Usefulness of classical homoeopathy for the prevention of urinary tract infections in patients with neurogenic bladder dysfunction: A case series

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ABSTRACT

Context: In patients with neurogenic lower urinary tract dysfunction due to Spinal Cord Injury (SCI), recurrent Urinary Tract Infections (UTI), is a frequently encountered clinical problem. Often, conventional preventive measures are not successful.

Aims: To treat the patients of SCI suffering from recurrent UTI with classical homoeopathy as add-on to standard urologic care.

Materials and Methods: After exclusion of morphological abnormalities and initiation of a standard regime for prophylaxis, all patients with a neurogenic lower urinary tract dysfunction due to SCI, with more than three symptomatic UTI/year, were offered additional homoeopathic care. Symptoms were fever, incontinence, increased spasticity, decreased bladder capacity or pain/decreased general health combined with significant bacteriuria. Descriptive statistics was used for analysis.

Results: Eight patients were followed up for a median period of 15 months. Five patients remained free of UTI, whereas UTI frequency was reduced in three patients. **Conclusion:** Our initial experience with homoeopathic prevention of UTI as add on to standard urologic prophylactic measures is encouraging. For an evidence-based evaluation of this concept, prospective studies are required. Keys for the positive outcome of this case series are co-operation of well-qualified partners, mutual respect and the motivation to co-operate closely.

Keywords: Homoeopathy, Neurogenic bladder dysfunction, Recurrent urinary tract infection

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INTRODUCTION

Virtually all patients with spinal cord injury/lesions (SCI) suffer from neurogenic lower urinary tract dysfunction. As a result of impaired storage and voiding function, urinary tract infections (UTI) occur frequently in this group of patients. UTI are the leading cause for septicaemia in patients with spinal cord lesions, and are associated with a significantly increased mortality.^[1] Furthermore, symptomatic UTI are often bothersome for the patients and are therefore related to a decreased health-related quality of life. As UTI are often recurrent and the bacterial strains are increasingly resistant to antibiotic treatment,^[2] UTI present a relevant clinical challenge for both patients and caregivers. Thus, one should await a significant number of studies analysing the options for UTI prophylaxis in SCI patients, leading to recommendations in the existing guidelines. However, this is not the case. In the guidelines of the European Association of Urology (EAU) on neurogenic lower urinary tract dysfunction, UTI prophylaxis is not mentioned.^[3] The EAU guidelines on UTI cover prophylactic measures merely for uncomplicated UTI, whereas UTI in persons with SCI are regarded as complicated UTI.^[4] A recent meta-analysis demonstrated that antibiotic prophylaxis, which is commonly used, does not lead to a significant reduction in UTI, but causes an increase in resistant bacterial strains.^[5] As there are no evidence-based prophylactic measures, centres providing urologic care for SCI patients use a plethora of different treatments.^[6] However, no literature concerning the usefulness of homoeopathy in these patients is available. We present a case series describing the effects of additional homoeopathic treatment for the prevention of recurrent UTI in SCI patients receiving standard urologic prophylaxis.

CASE STUDIES

Between April 2011 and June 2012, all SCI patients presenting at our outpatient clinic with recurrent UTI (>3UTI/year) due to a neurogenic bladder dysfunction were asked whether they were interested in homoeopathic treatment for the prevention of recurrent UTI after morphologic (e.g., stones) or functional (e.g., uncontrolled detrusor overactivity) reasons for UTI were excluded by ultrasound, urodynamics and cystoscopy. In 12 of the 22 patients, morphological reasons were detected and treated surgically. Eight of the remaining ten patients who were offered adjunctive homoeopathic treatment opted for it.

All participants primarily underwent homoeopathic case taking by experienced homoeopaths. They received constitutional treatment with single medicine in high potencies. If required, inter-current homoeopathic medication was given. In cases with fever/septicaemia, antibiotic treatment of the acute UTI was applied.

Urine culture revealed significant bacteriuria in all patients. All patients were male. Three patients had a cervical lesion, five suffered from a thoracic SCI. Four lesions were complete, four lesions were partial. Standard urologic prophylaxis given to all patients included in this case series consisted of long-term (3 months) antibiotic treatment with either Nitrofuracin or Trimethoprim, depending on the most recent microbiologic result, urine acidification with L-Methionine and Cranberry tablets, twice/day.

Case 1

A 31 year old patient was first seen in August 2012. He suffered from a complete SCI below T10 since 2001. He performed intermittent self-catheterisation to empty his bladder five times a day. He complained of about six symptomatic UTI/year, mostly with Escherichia coli, despite long-term antibiotic therapy since 8 years. In addition, he had increased spasticity in his legs. He received Sulphur LM1, as he was stubborn, egocentric and could not throw away old things (collector). In October 2012, he complained about tension as he participated at a "Mister Handicap" competition. Furthermore, his decubital ulcers did not heal. He received Nux vomica LM1. At a control visit in December 2012, he had less spasticity. He was more relaxed and had less attacks of UTI. On his last visit in September 2013, he reported no recurrence of UTI since April 2013. He had recurrent diarrhoea and thus received Sulphur LM1.

Case 2

45 year old male patient presented the complaints initially in April 2011. He had partial SCI below C7 since 1999. He emptied his bladder by intermittent catheterisation, and suffered from febrile UTI every second weekend since 9 years, with varying bacterial strains. Treatment with phytotherapy, D-mannose and long-term antibiotic prophylaxis were all ineffective. On case taking, he reported that his urinary urgency was ameliorated by riding a car. He could not weep, had acrophobia and milky urine. He received Lycopodium clavatum LM1 for 2 months. No UTI until July 2011. The UTI was treated with Lycopodium clavatum LM1, and he remained free of UTI until September 2011. Despite the UTI, he reported that he felt better. The UTI was treated with Benzoicum acidum, five drops daily for 3 days. UTI recurred in October and November 2011, and was treated with Staphysagria LM 1 and later with Terebinthinae oleum six drops daily for 4 days. Terebinthium was selected as a local remedy for the UTI, which became symptomatic with cloudy, odorous and bloody urine and the patient was very thirsty. As

he developed prostatitis with recurrent UTI every 3-4 weeks, he was treated with *Sarsaparilla* LM1 in March 2012 due to strong stinging urethral pain at the end of the catheterisation and sensitiveness to touch of the bladder region. As UTI frequency did not change, he received *Lycopodium clavatum* LM4 daily in May 2012, which has been used as his constitutional remedy due to suppressed emotions (see above). In addition, he complained of red sedimentation in urine. The remedy led to a reduced UTI frequency (every 5 weeks). As UTI frequency increased again in January 2013, he was treated with *Staphysagria* LM1 for 6 weeks and remained without UTI until the last control visit in July 2013.

Case 3

A 36 year old patient with a complete SCI below T6 since 2001 emptied his bladder by intermittent self-catheterisation. In May 2011, he presented to our homoeopaths due to recurrent UTI (six/year) with E. coli for 7 years, which could neither be reduced by cranberry juice nor by long-term antibiotics. He has increasing concerns because of financial worries, and because of the disease of his wife (multiple sclerosis). Furthermore, he was occupied with his spinal cord lesion, which occurred 7 years ago. He was shy, but felt hurt easily, with sudden emotional outbursts, performed catheterisation four times/day, and thus received Staphysagria LM1, which led to decreased sweating, and less attacks of UTI. He was more tired and laughed more often. In October 2011, he had another attack of UTI, and therefore was treated with Staphysagria LM2, which led to the cure of UTI and an improved mental state. He remained free of UTI until March 2012, when he acquired an epididymitis, which was treated by antibiotics. As detoxification of the antibiotic treatment, due to sensitiveness to cold and nervous irritability, he received Nux vomica LM1, and merely had one attack of UTI until today.

Case 4

A 38 year old patient with partial SCI below C7 since 2008, emptied his bladder by triggered reflex voiding. In June 2011, he was seen by the homoeopaths for the first time. He reported six attacks of UTI/year since 2 years, with malodorous, dark urine. UTI were mainly caused by Enterococci and Proteus mirabilis, and prophylactic measures (Cranberry tablets, long-term antibiotics) did not improve the situation. He was a quiet, cautious, introverted, tidy person. He

had fears of dogs and fear of the future, especially of becoming dependent on caregivers. As he felt under pressure and developed fear of failure as he had to organise a social event, he received Lycopodium clavatum LM1. As the UTI frequency was steadily decreasing, he continued with Lycopodium clavatum LM2 and LM3, until March 2012. He reported having had no further attack of UTI; his vital capacity had increased, he was sweating more during the night and he seemed more open-minded. In January 2013, he had to undergo surgery for a bladder stone, and developed another attack of UTI in the course of surgical treatment, which was treated by antibiotics. Thus, he received Nux vomica LM1, as detoxification of the antibiotic treatment, and due to sensitiveness to cold and nervous irritability. The last attack of UTI occurred in April 2013, which was treated with Berberis vulgaris, initially with mother tincture, followed by LM1. As an exciting symptom, he reported flank pain with a bubbling sensation in the flank. In September 2013, he presented without any further attack of UTI, with stable state of mind and general well-being.

Case 5

A 24 year old male with partial SCI below T4 since 2008 performed intermittent catheterisation to empty the bladder. Despite prophylaxis with cranberries and long-term antibiotics, he had 11 attacks of UTI/year since 2 years, predominantly caused by E. coli and Klebsiellae. He presented with burning pain and increased spasticity in the abdomen and the lower extremities. He was exhausted despite good sleep, he had fears of dogs and surgery. He received Staphysagria LM3 for 1 week. In June, UTI recurred, but he had more energy, and old symptoms (dizziness, nausea) recurred. Staphysagria was continued, and he was free of UTI until October 2011. At that time, besides the UTI, he felt exhausted, secluded himself, had nosebleeds and became impatient. He was treated with Phosphorus LM1, and is free of UTI until today.

Case 6

A 62 year old patient with complete SCI below T11 since 2000, voided with an anterior sacral root stimulator after sacral differentiation in 2003. He presented with five attacks of UTI/year since 9 years, mostly with *E. coli*, not improved by treatments with cranberry juice and long-term antibiotics, respectively. He was irritable, quick-tempered when offended, dutiful and distanced. He had fear of the future and preferred being alone. Based on the mentioned mental symptoms and the occurrence of red urine sediment, he was treated with *Lycopodium clavatum* 1M, two doses/day at 15-minutes interval, and was free of UTI for 4 months. Without further homoeopathic treatment, he remained free of UTI for another 18 months. At the last recurrence of a UTI in June 2011, he was treated with *Staphysagria* 1M, as he complained about nightmares especially about financial losses, and erotic dreams with spermatorrhoea, stomach cramps and pain in the thumbs. He remained free of UTI since then.

Case 7

A 40-year-old-male with partial SCI below C7 since 1999 emptied his bladder by triggered reflex voiding. He consulted our homoeopaths for recurrent *E. coli*-UTI (6/year) since 10 years. Cranberry juice and long-term antibiotics could not resolve the problem. He was a tidy person. When taking his history, he reported to be sad, having chronic constipation, no fear, and amelioration at the sea and worsening in the cold. He received *Nux vomica* 10M, 2doses and remained free of UTI until November 2012. As the UTI was symptomatic with burning pain, he received *Nux vomica* LM1, for 3 weeks and remained without UTI until today.

Case 8

A 34-year-old male with a complete paraplegia sub T6 since 2001, used intermittent catheterisation for bladder evacuation. He suffered from recurrent symptomatic UTI, 8-12 year, caused by E. coli. Cranberry juice, urine acidification and long-term antibiotics were ineffective. At initial case taking, he also reported about increased spasticity and being sensitive to touches. He complained about many fears financial loss, being abandoned by his wife. Therefore, he received Staphysagria LM3 for 2 weeks and remained free of attacks of UTI for 1 year. After one year, he developed another attack of UTI when performing exhaustive training and undergoing stress when preparing for the paralympics. As this preparation led reflection of his former success (before the accident, he participated at the Olympics instead of the Paralympics), he complained about mental exhaustion, lack of social reputation, became extremely sensitive and presented with increased spasticity after catheterisation. After Staphysagria LM6, three times daily for 4 weeks, he remained free of UTI until today.

RESULTS

To summarize, five patients remained free of attacks of UTI, whereas UTI frequency was reduced in three patients. In four patients, standard prophylactic treatment could be reduced. No side effects or adverse drug reactions were encountered. Bladder management and standard prophylactic measured remained unchanged in all patients.

DISCUSSION

Symptomatic UTI occur in nearly 60% of persons with SCI after discharge of primary rehabilitation.^[1] They are the most common reason for septicaemia and are associated with an increased mortality.^[7] Furthermore, they have a massive negative impact on the health-related quality of life of the affected patients.^[8] Until today, there is no evidence-based effective prophylactic treatment. Neither long-term antibiotics^[5] nor cranberry juice^[9] have been demonstrated to be significantly superior to placebo treatment; the former, however, is associated with an increased number of resistant bacterial strains. For urine acidification, data for the usefulness of urine acidification by L-Methionine are scarce.^[10] Thus, the urologists in SCI rehabilitation centres developed individual concepts for UTI prophylaxis.^[6] our centre, homoeopathic In treatment is an important cornerstone of this concept.

As optimising, the management of neurogenic lower urinary tract dysfunction is known to lead to decrease attacks of UTI,^[3] it is important to note that neither the mode of bladder management nor the medical standard prophylactic treatment was altered in any of the patients. Thus, it is plausible that the positive effects reported above are due to the adjunctive homoeopathic treatment.

Although it is well known among practicing homoeopaths that homoeopathic treatment is effective in preventing UTI, only a very limited number of publications about this topic are available.^[11] Until today, our case series is the largest study reported in the literature.

Although all homoeopaths claim to prescribe medicines based on the principles of Homoeopathy^[12] but different schools of Homoeopathy exist.^[13] In our group of patients, classical Homoeopathy was used. In brief, a single Pannek, et al.: Homoeopathy in urinary tract infections

remedy was selected based on the totality of signs and symptoms of the individual patient.^[14] Although treatment was constitutional, remedies with a tropism related to the lower urinary tract and catheterisation, like *Staphysagria* and *Lycopodium*, were chosen most frequently. In all patients, high potencies were used. They were well tolerated, neither initial aggravation nor side effects were observed.

The effects of homoeopathic treatment in this case series were impressive and exceed the effects of other prophylactic measures. Despite reduction of standard prophylactic treatment, five patients did not develop further attacks of UTI, whereas UTI rate was reduced in the remaining men. Furthermore, although this was not assessed systematically, no patient complained about side effects or any negative consequences of the homoeopathic therapy. Two patients spontaneously described that their general well-being has improved with homoeopathic treatment. Therefore, future clinical studies of homoeopathic treatment should not focus on UTI frequency alone, but should evaluate quality of life and truly the totality of symptoms should be systematically assessed, which was beyond the aim of this case series.

In conclusion, Homoeopathy in addition to prophylactic conventional measures seems to be an effective, promising method for the prevention of recurrent UTI in patients with SCI. Especially in this group of patients, suffering from chronic disease and receiving long-term medical treatment for many secondary dysfunctions, reduction of drug intake and freedom from infection contribute to an improved quality of life. Thus, a co-operation between urologists and homoeopaths is the key to improve not merely the situation of the lower urinary tract, but also the well-being of the affected persons. To confirm the results of this case series, a prospective study is required.

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संदर्भः रीढ़ की हड्डी की चोट के कारण तंत्रिकाजन्य मूत्राशय रोग के साथ रोगियों में विशेष रूप से आवर्तक मूत्र पथ संक्रमण एक लगातार नैदानिक समस्या है। अक्सर पारंपरिक निवारक उपाय सफल नहीं होते।

उद्देश्यः इन रोगियों में मानक मूत्राशयी देखभाल के अलावा उत्कृष्ट होम्योपैथिक उपचार के प्रारंभिक परिणाम पेश करने के लिए।

सामग्री एवं विधियाँः तंत्रिकाजन्य मूत्राशय रोग से प्रतिवेधोपचार के लिए संरचनात्मक असमानताओं को हटाने और एक मानक व्यवस्था की शुरूआत करने के लिये रीढ़ की हड्डी की चोट के कारण तंत्रिकाजन्य मूत्राशय रोग के सभी मरीजो में अधिक से अधिक 3 यूटीआई लक्षणों के लिये अतिरिक्त होम्योपैथिक देखभाल की पेशकश की गई। बुखार, असंयम, अतितानता में वृद्धि, मूत्राशय क्षमता में कमी/दर्द, महत्वपूर्ण जीवाणुमेह के साथ संयुक्त सामान्य स्वास्थ्य की कमी, लक्षण थे। विश्लेषण के लिए वर्णात्मक सांख्यिकी का प्रयोग किया।

परिणामः 15 महीने के माध्य अवधि के लिये 8 रोगियों का अनुवर्तन किया गया। 5 मरीज यूटीआई से मुक्त हुए। वही 3 मरीजों में इसकी कमी पाई गयी। निष्कर्षः मानक मूत्राशयी निवारक उपायों के अलावा यूटीआई होम्योपैथिक रोकथाम के साथ हमारा प्रारंभिक अनुभव प्रोत्साहित करने वाले है। सकारात्मक परिणामों के लिए की कुंजी अच्छे से योग्य भागीदारों का आपसी सहयोग, सम्मान और निकट सहयोग के लिए प्रेरणा है। इस अवधारणा के एक प्रमाण आधारित मूल्यांकन हेतू, भावी अध्ययनों की आवश्यकता है।

