

# Idiopathic cystitis illustrated in cats and dogs (also applicable to human medicine)

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## **Introduction**

Dear Colleagues, dear members of the Brügemann Family, dear friends of bioresonance therapy and dear delegates.

I became involved in bioresonance four years ago and last year I was invited and encouraged to present a lecture here at the International Congress. I would like to express my sincere thanks for that invitation.

First of all, let me introduce myself. I have been running a veterinary practice in the Lake Constance area since 1995 where I mainly treat dogs, cats and rabbits as well as horses, cattle, goats and sheep.

I studied Veterinary Medicine from 1980–1986 in Gießen and Vienna, where I also obtained my doctorate.

Even back then I was always interested in homeopathy and acupuncture and attended courses on the latter in Vienna and subsequently in Germany. I was fortunate to be offered a job as an assistant in a practice that also carried out homeopathy and acupuncture.

In 2010, at a symposium, I met a vet who was working with bioresonance therapy. When our dog was seriously ill and “beyond treatment”, the vet was able to help her with bioresonance.

So in 2011 I purchased my own mobile BICOM optima device with which I have already had many positive therapeutic outcomes.

Today, I would like to talk to you about idiopathic cystitis in dogs and cats.

At some point, every veterinary surgeon and every veterinary naturopath who treats dogs and cats will have come across urinary tract infections in the broadest sense of the term.

The term which has been used for cats up until now, namely FUS (feline urological syndrome), has been replaced in the English-speaking world by FLUTD (feline lower urinary tract disease). Even in dogs, we nowadays refer in German to a disorder of the AHW or UHW (ableitende or untere Harnwege, i.e. the urinary or lower urinary tract), as inflammation of the bladder is clinically difficult to differentiate from urethritis and, in some cases, the ureter and renal pelvis are also affected.

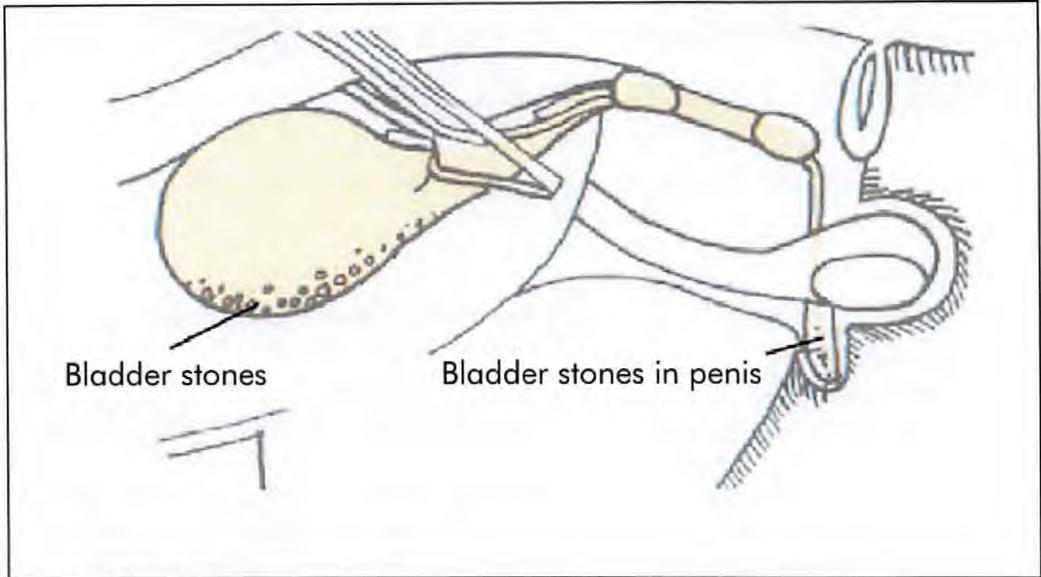
## **Symptoms**

What symptoms do these animals present in practice and what makes owners seek medical advice?

Here are some examples:

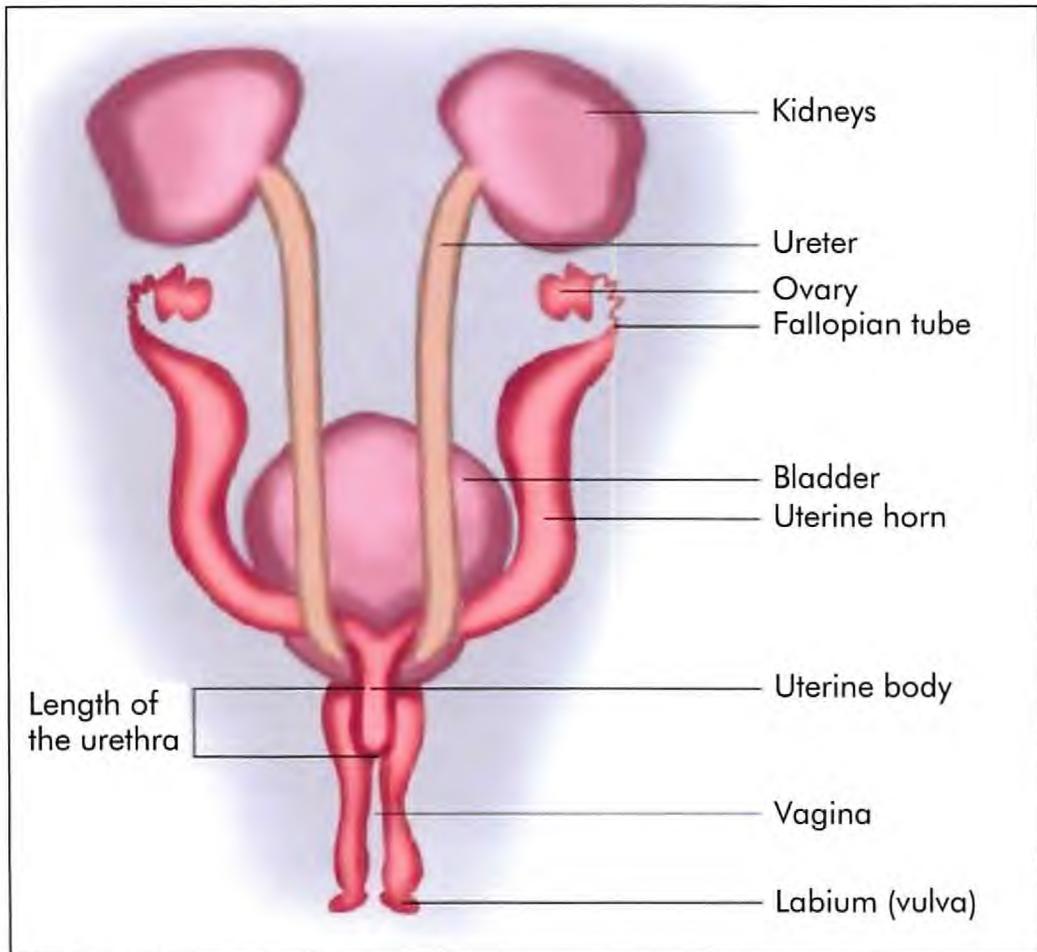
- the cat no longer urinates in the litter tray or the dog is soiling indoors
- the animal passes increasingly small amounts of urine (pollakisuria)
- the urine is emitted drop by drop
- stranguria
- blood in the urine (haematuria)
- non-passage of urine (anuria)
- pain on urinating

At this point we would, of course, be looking for a diagnosis in order to investigate the causes of these symptoms and find a therapeutic approach.



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Figure 1: Lower urinary tract in the male cat



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Figure 2: Urogenital system in the female cat

## Diagnosis

A detailed medical history should clarify the following points: has the animal been neutered? What are the housing and feeding conditions? Is the cat a house cat or is it free to roam, how many pets are kept? How many litter trays are there and where are they located? What type of litter/bedding is used? Are there any stress factors (new pets, lodger, new house, stray animals in the garden)? Are there signs of boredom or protest urination (handbag, fresh laundry in the laundry basket, satchel, children's beds)? How was the animal reared from a young kitten?

Points to query about the feed: Is the animal fed with dry or wet food or given "barf feeding" (BARF: biologically appropriate raw food diet)? What about the animal's drinking behaviour?

Previous disorders and treatments:

- Is this a relapse?
- Current medication

Clinical examination:

- Fever
- Palpation of the bladder

Urinalysis (cystocentesis, optimal):

- Urine
- Sediment (crystals, cells, epithelial cells, etc.)
- Bacteriology

Blood test

Imaging techniques: X-rays (contrast), ultrasound, cystoscopy

- Bladder calculi, uroliths
- Neoplasms
- Anatomical abnormalities (urachal diverticulum, double colon)

I have tried to list the comprehensive diagnosis, which has provided the basis for scientific literature and terminology (idiopathic cystitis). This is not always

feasible in routine practice. With uncontrollable cats, for example, we have to consider which diagnostic approach makes sense.

## Causes and pathophysiological mechanisms of LUTD

As evident from the medical history and diagnosis, inflammation of the bladder can have numerous causes.

Firstly, viruses or rare bacteria can cause urinary tract infections. Consequently, mucoproteins and products of inflammation lead to haematuria and dysuria.

Secondly, crystalluria can trigger stone formation. Struvite crystals are common in cats, even without bacterial urinary tract infection, and can also form in clinically healthy cats.

(Caution: Test fresh urine within half an hour because crystals will form if the urine is stored in a refrigerator.)

A urinary tract obstruction occurs when small bladder stones become lodged in the urethra. This is typically found in the tip of the penis in a neutered male cat.

Thirdly, an infection combined with crystalluria can lead to the formation of matrix crystal plugs causing an obstruction.

The idiopathic form of LUTD in cats and dogs is very similar to interstitial cystitis in humans – a condition that is mainly diagnosed in women.

Using exclusion diagnostics through cystoscopy, submucosal, petechial haemorrhaging, the replication of substance P receptors and a large number of non-myelinated nerve fibres can be detected in the submucosa. The pathogenesis is initial necrosis of the bladder epithelium of unknown origin, which exposes nerve endings. An allergic component is considered in this respect.

A retrospective study of 648 cases of "FLUTD" in cats (Diss. C. Schmid, Univ. of Munich 2011) based on tests carried out in the UK and USA in the 1990s highlighted an increase in incidence from 1% to 13% per year, including 7.8% cases of LUTD in clinics and 4.6% in practices (Bartges, 1997; Lund et al., 2001).

No European information is available to date.

The cause of FLUTD was attributed to urinary stones in 13–28% of cases, bacterial urinary tract infections in 10–59% of cases but predominantly to idiopathic cystitis in 55–69% of cases. Anatomical abnormalities or neoplasms were seldom found.

Viruses (e.g. bovine Herpes virus 4, BHV4) were implicated but findings were not significant to warrant a comment on the pathogenetic role of viruses (Krüger et al. 1991).

The pathogenesis of idiopathic cystitis is described in parallel to human medicine as a multifactorial phenomenon with local abnormalities in the bladder wall, changes in the central, peripheral, sensory and sympathetic nervous system and imbalance in the neuroendocrine system.

In this context, Professor Dennis Chew focused on shrunken adrenal glands, lower cortisol levels and thus greater permeability of the bladder epithelium in his investigations. He referred to a false stress response.

The symptoms of idiopathic cystitis are manifested in well-known disorders: painful urination, pollakisuria, stranguria and dysuria.

Blood and white blood cells may be detected. Bacteria are not present.

Non-infectious cystitis has been described as a complication of cytostatic therapy with cyclophosphamide in dogs.

During the clinical course of the disease, thickening of the mucosa, ruptures and ulcers as well as mast cell infiltration can lead to loss of elasticity in the bladder wall.

The diagnosis of idiopathic cystitis is also an diagnosis by exclusion.

Based on human medicine reports, the possibility of an allergic component in the aetiology of lower urinary tract inflammation through to incontinence is also under discussion, albeit controversially, amongst vets.

At this point I would like to refer to the case of a bitch that reacted to cow's milk with haematuria and pollakisuria. I was not practising bioresonance at that time.

### **Treatment**

Various types of medication (e.g. anticholinergics, spasmolytics, DMSO and sedatives) had met with moderate success.

A spontaneous cure was recorded after 5–7 days.

Finally, some therapeutic success with haematuria was attributed to the antibiotic, which was administered to be on the safe side.

### **Relapses**

In the afore-mentioned study carried out by C. Schmid, out of 68 cats, more than 50% presented once again with the symptoms of FLUTD over a period of eight weeks. In 61.8% (42/68) of cats, the same disease aetiology was evident with the first relapse. Idiopathic cystitis was the most commonly recurring aetiology.

In the treatment studies conducted by Chew et al. (1998), Gunn-Moore and Shenoy (2004), Wallius and Tidholm (2009) focusing on cats with recurring symptoms of idiopathic cystitis, 26–65% of the study animals presented with one to five episodes of clinical symptoms on average during the study period.

All of the study animals had presented with two to five episodes of clinical symptoms before the study began.

This shows the relevance of this disorder in LUTD, whether as an obstruction or urinary tract infection that develop subsequently, because many cats have multiple recurrences to varying extent.

In routine practice, there is not always the option to carry out accurate exclusion diagnosis and give a precise sub-division of LUTD as a urinary tract infection, crystalluria, a combination of both or an idiopathic form of LUTD.

Not all of the other aspects of the kidney-bladder excretory system are involved.

### **The bioresonance therapy viewpoint**

The bladder as part of the lower urinary tract is assigned to the Yang function circuit of the element of water. This also includes the male and female genitalia and, from a pathological aspect, allergy and vascular degeneration.

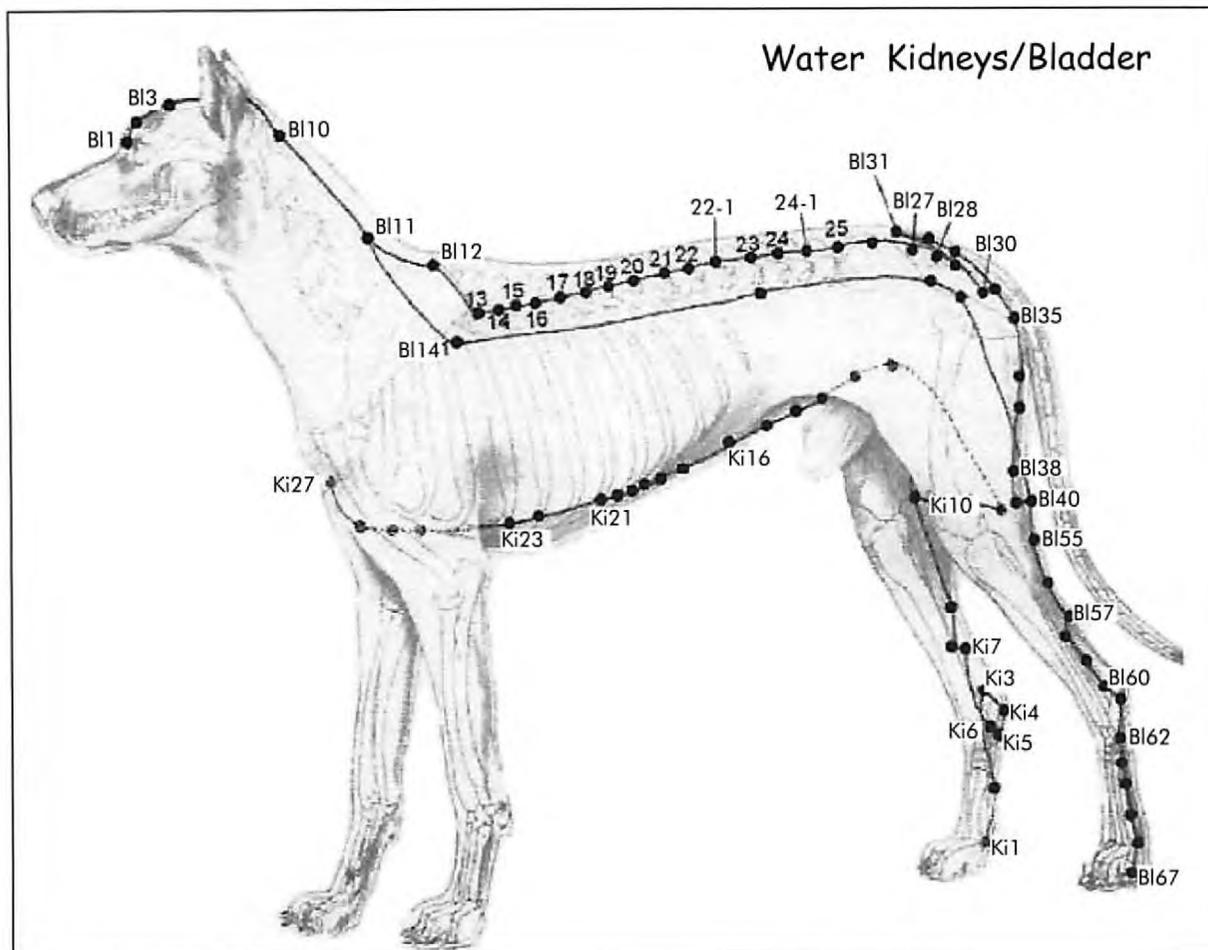
The complementary Yin function circuit includes the kidneys with the renal pelvis, pyelorenal border region and the renal medulla. Lymph, tonsils, jaw and paranasal sinuses are also mentioned.

The chart of the functional circuits, meridians and rule of 5 highlights the connections in the body.

### Function circuits

Function circuits	Water
Yin organs	Kidneys Renal pelvis Pyelorenal border region Renal medulla Lymph Tonsils Jaw Paranasal sinuses
Yang organs	Bladder Urinary bladder Bladder fundus Sphincter Male genitalia Female genitalia Allergy Vascular degeneration
Upper dentition	2nd and 1st teeth
Lower dentition	2nd and 1st teeth
Paranasal sinuses	Frontal sinus
Tonsils	Tonsilla pharyngea
Joints	Foot Knee (rear) Sacral bone, Coccyx
Vertebrae	L2 and 3 S4, 5
Tissue	Bone
Sensory organs	Ears

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The bladder meridian runs parallel to the spine – the energy column with the spinal cord – to the little toe. The kidney meridian starts on the soles of the feet and runs along the inside of the leg parallel to the centre of the abdomen, as far as the collarbone.

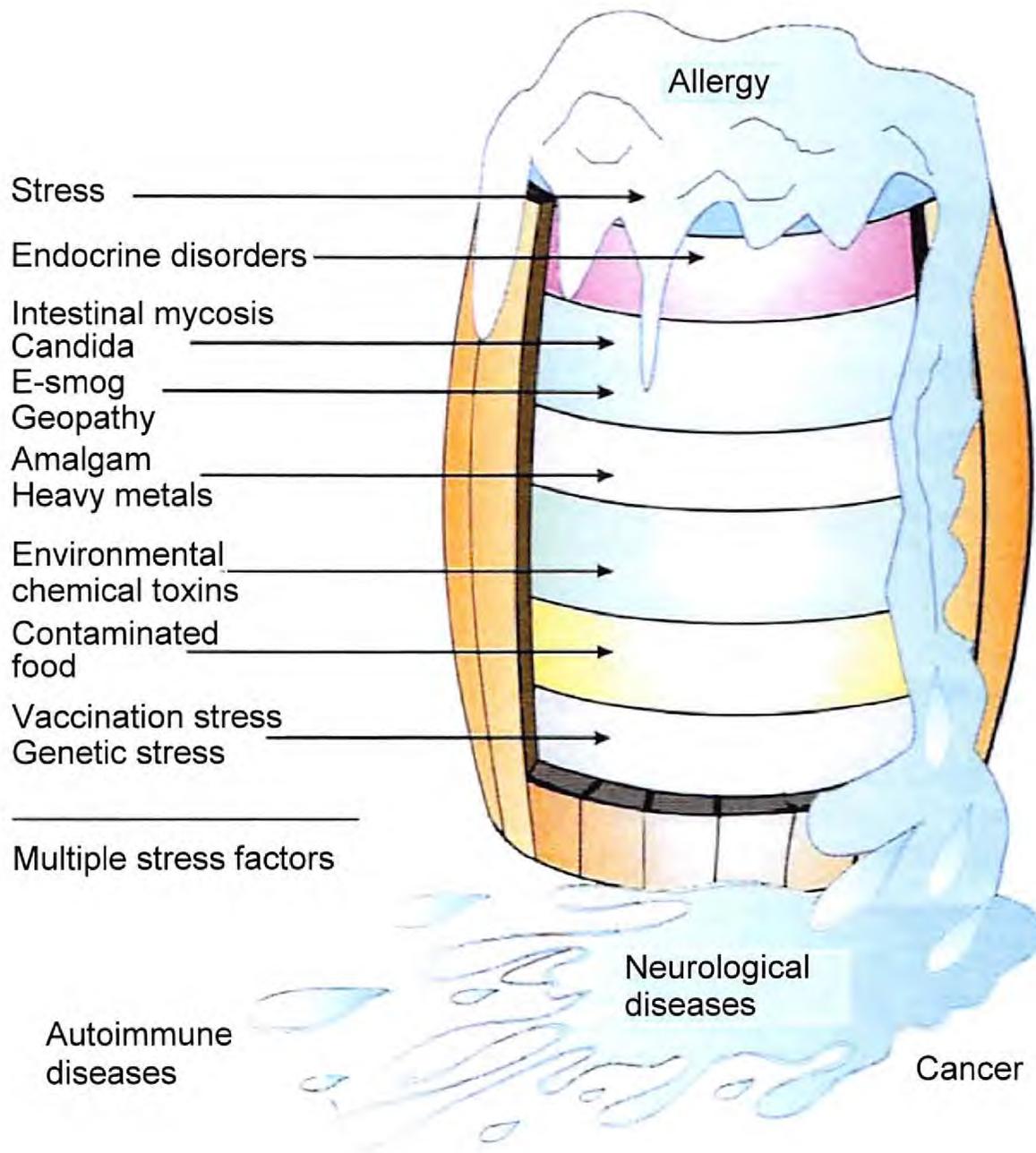
Disturbances in the meridians (scars, skin conditions) may affect the free flow of energy and have a pathological effect.

In bioresonance, we use a barrel filled with various stress factors that impact upon living organisms to illustrate multifactorial phenomena: chemical stresses from food, drinking water, the air, exposure to radiation, heavy metals, vaccinations, psychological stress, pathogens and parasites.

The excretory organs (liver, lymph glands, intestines, lungs, skin, kidneys and reproductive organs) are required to constantly cleanse the body to prevent the barrel from overflowing (see diagram).

The kidney-bladder system is used continually to filter the blood and eliminate the toxins of metabolic and detoxification processes from the cells.

These toxins are concentrated in the urine and may damage the epithelial cells in the bladder. This triggers inflammation. Products of inflammation and detached cell material combined with pre-existing crystals cause matrix crystal plugs that block the urethra. A stressed metabolism overloaded with unnatural and indigestible substances, will generate crystals. A damaged bladder epithelium is also more prone to infection.



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Allergic substances can also trigger inflammatory changes in the bladder epithelium in this way.

The vegetative nervous system affects bladder tone and urination. Stress, in turn, affects the autonomic nervous system and endocrine glands.

Bioresonance provides a key therapeutic starting point as it is effective at different stages in the process through different frequencies.

## **Case studies**

### **1. "Bessy" Collie bitch spayed, born in 2003**

Since 2006, cystitis once or twice a year with frequent urination; occasionally bloody urine containing leukocytes, also vomiting and diarrhoea; antibiotics and infusions were required in 2010.

August 2011: diarrhoea with program series (PS No.) **10040** (regulating bowel action) treated and cured.

October 2011: cystitis with program series **10025 (3018, 490, 3036)** (irritation of the bladder) treated and cured.

The bitch, Bessy, now a twelve year-old spayed female Collie, has been a patient in my practice since 2004 with gastroenteritis recurring once or twice a year, sometimes accompanied or followed by cystitis.

Sometimes Bessy displayed only increased urination with bloody urine and no gastrointestinal symptoms. The urine contained erythrocytes and leukocytes. Antibiotics, probiotic formulations based on intestinal flora analysis and dietary measures could not prevent recurrence. This meant more and more sleepless nights for the owner because Bessy needed to go outside.

In August 2011, the owners came to my practice, utterly distraught. I had had a bioresonance device (BICOM optima mobil) for three months. The owners asked me to do something, anything, to stop the diarrhoea.

I treated the dog spontaneously with program series (PS) 10040 (regulating bowel action). Previously, the owners had refused or expressed reservations regarding bioresonance therapy. I then heard nothing for two weeks.

Finally I received a phone call from the owner. They did not want to call earlier because they couldn't believe their good fortune. The diarrhoea had ceased the next day and had not recurred.

This opened the floodgates, so to speak, and when the next episode of pollakisuria developed in October 2011, I treated the animal straight away with bioresonance.

Once again, it took only one session with program series 10025 (irritation of the bladder) and Bessy was symptom-free.

I must mention the psychological background to this case:

Originally, at the husband's request, the couple got a male Collie and, two years later, a female Collie. There were no children in the household.

The woman works as a nutritionist in health food retail and is also very conscientious when it comes to feeding her dogs. When the dogs became ill, she soon felt guilty and wondered whether she had done something wrong.

This initially led to a kind of nervous strain which also had an impact on her partner. As 14 year-old Rude had to be euthanized in March 2011, the bitch was left to face the nervousness of the owner alone – "Has the dog got diarrhoea again? Does she have another bladder infection? What have I done wrong?"

For a bioresonance therapist it goes without saying that, at a physical level, this will also affect the dog.

Bioresonance helped to break this vicious circle because since then, I have no longer had to treat Bessy for bladder symptoms and the owners are delighted with what I have been able to do for their dog.

### **2. "Vladimir" European domestic cat, neutered. Male, born 2001**

Vladimir was eight kg overweight and very slow, even though he was allowed to roam.

April 2011: cannot control urine, bladder infection, crystalluria, antibiotics, dietetics, urolithiasis-food.

October 2011: the cat was treated in clinic for a blocked bladder, discharged early at the owner's request.

Continued to dribble urine, the owner requested that the condition be treated holistically.

Treatment:

31.10.11:

PS No. **10025 (3018, 490, 3036)**

substance complex: urinary tract infection acute

02.11.11:

Further antibiotics for four days as catheterisation was performed to remove the bladder obstruction.

An improvement was evident even after the first bioresonance session.

Blood tests and therapy:

Basic program for Yin state

PS No. **10132** elimination, No. **970, 481**

PS No. **10025, (3018, 3036)**

12.11.11:

PS No. **10114** (renal function impairment), channel 2: Solidago, Ubiquinone, coenzymes

Vladimir was able to lose weight and became more active. He has not been back to my practice and is doing well (Telephone conversation 15.01.15).

**3. "Susi" Dachshund bitch, spayed, born 2003**

Sept. 2010: atopic dermatitis

03.11.11: start of bioresonance therapy

23.11.11: bloody urine, urinates in the apartment

The owner reported that the dog became unclean six months earlier when her husband, who was suffering from cancer, took a turn for the worse and the dog was closely attached to him.

Treatment:

PS No. **10025** bladder irritation, substance complex: cystitis acute

30.11.11:

Urine still bloody, PS No. **10025**, substance complex: cystitis chronic

Urine test: potentiation of urine via Pg. **33.0**: Ai D8 oscillated onto drops, 3–5 drops, three times a day, including antibiotics

07.12.11:

no longer any symptoms, no recurrence.

Because of atopic dermatitis, Susi continued to be successfully treated with bioresonance up to November 2012. The fur on her abdomen and hind quarters grew back and stayed, which I saw for myself in summer 2014.

**4. "Mia" French bulldog, female, spayed, born 2007**

Mia has been a patient in my practice since 2014. She has had recurring bladder problems for a number of years and became unclean. Each time Mia was given antibiotics; prone to rashes, ear infections, licking paws. Therefore antibiotics and cortisone were prescribed. Mia had to undergo surgery three times due to corneal disease and received further antibiotic therapy. Treated with NSAIDs due to back pain and lameness.

28.07.14: Mia has been unclean for several weeks and soils her owner's bed. The owner is receiving psychotherapy (occasionally psychotropic drugs) and, for work reasons, sometimes lets friends take care of the dog for one to two weeks.

Treatment:

PS No. **10025** bladder irritation

Herbal remedy for the bladder (Vesica) Cantharis C200

Mia is symptom-free (the owner no longer needs antidepressants).

**5. "Hexe", Persian cat, female, spayed, born 2010**

08.10.2011: recurrent bloody cystitis, treated by a colleague with antibiotics four weeks previously, again reddish drops of urine outside the litter tray.

Therapy: PS No. **10025** supportive, Bach flowers as this is a house cat.

Symptom-free, no recurrence.

**6. "Flori" European domestic cat, male, neutered, born 2003**

06.03.13: bloody urine, findings on palpation: suspected bladder stone.

Ultrasound: extremely thick bladder wall, bladder not completely full, no stones

Therapy: acidify with urine, dietetics, metabolic regulation

18.03.13: uncontrolled loss of blood urine, blood test: urea slightly increased, leukocytosis, neutrophilia.

Treatment:

Antibiotic therapy, Solidago, Ubiquinone, coenzymes, Mucosa comp.

20.03.13:

Urine sediment normal

27.03.13:

Bioresonance therapy: PS No. **10126** bladder irritation, substance complex: cystitis, chronic, TW ampoule bladder, Solidago, Ubiquinone, Coenzymes.

**7. "Pira" mongrel from Italy, spayed, born 2010**

22.08.14: intestinal activation due to skin problems, then "wetting" (due to rice diet – no previous cases where rice diet has led to "wetting"), incontinence developed spontaneously one year earlier.

Treatment:

Pg. **980.1** bed wetting,

Pg. **981.2** bed wetting,

Pg. **390.2** prolapsed bladder (due to spaying), Argentum nitricum C30.

Dry the following night – no further treatment required since then.

**8. "Lucie" pug, female, born September 2014**

26.11.14: The puppy has lived with the owner from the age of nine weeks. From day one, the dog urinated hourly during the day and 4–5 times through the night. At the breeder's house, the puppies were kept indoors, in the "Puppy play room" where the floor was covered with sheeting.

Urine test strips revealed: blood, leukocytes++, protein++

Treatment:

Bladder-kidney tea, Vesica (nettle, bearberry leaves, dandelion and cranberry).

01.12.14:

Improvement in urine test strips: negative blood, leukocytes+, protein+

Still urinates 20 times a day

Therapy: PS No. **10025** bladder irritation

03.12.14:

Urine test strips: Leukocytes neg., slight protein.

Clean at night.

08.12.14:

Urination reduced to approximately seven times – clean for eight hours through the night

16.12.14:

Healthy, can be vaccinated against rabies. Vaccination tolerated without side effects.

And here's a photo to round off the patient case studies:



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## Discussion

When I look at these case studies from my practice and the scientific literature regarding LUTD recurrence rates, it is striking that, in this random sample, viewed from the cat population, no recurrences occurred. In conventional medicine, LUTD can be a major problem with frequent hospital admissions, anaesthesia when obstructions have to be removed, subsequent infusion and sometimes weeks of antibiotic therapy, culminating in penis amputation following several recurrences.

In contrast, bioresonance appears to be well placed as an holistic form of treatment to set in motion the regulatory mechanisms that help an animal to regain and maintain its own equilibrium.

This treatment regimen can also be applied to human medicine.

Since this parallel with idiopathic cystitis has been described in conventional medicine diagnostics and I have successfully treated animals with human medicine bioresonance programs, the opposite should also apply. For cells communicate with each other in an identical or similar manner.

I have mainly achieved these successful therapeutic outcomes using program series **10025** bladder irritation.

## Program series used

### **Bladder irritation PS No. 10025**

Bladder irritation LDF	Prog. No. 3018.0	Di	21.4 Hz (Beta brain waves)
Irritation of the bladder	Prog. No. 490.1	H+Di	93 kHz
Regulate detoxication	Prog. No. 3036.0	H+Di	Frequency sweep

### **Irritable bladder PS No. 10126**

Bladder irritation LDF	Prog. No. 3018.0	Di	21.4 Hz
Irritable bladder	Prog. No. 490.2	H+Di	93 kHz
Regulate detoxication	Prog. No. 3036.0		Frequency sweep

### **Renal impairment PS No. 10114**

Renal function impairment	Prog. No. 3078.0	H	17.8 Hz (Beta brain waves)
Renal function impairment	Prog. No. 482.0	H+Di	2.4 kHz
Renal regulation	Prog. No. 3080.0	H+Di	13.7 Hz (Alpha brain waves)

### **More bladder programs**

Bladder treatment, chronic	Prog. No. 391.7	Di	52 kHz
Irritable bladder	Prog. No. 950.4	H+Di	740 Hz
Prolapsed bladder program 1	Prog. No. 390.2	H+Di	55 kHz
Prolapsed bladder program 2	Prog. No. 310.4	H+Di	58 kHz
Meridian bladder acute	Prog. No. 390.1	H+Di	55 kHz
Meridian bladder chronic	Prog. No. 391.1	Di	52 kHz

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