

# Case studies PetCell®



## Cold plasma therapy in small animal practice



**ActivCell**  
Group

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## Case studies

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## Case studies

### Nasal furunculosis – Dog Tori

Dr. med. vet. Michael Hiestand  
Kleintierpraxis am Obersee, Altendorf

St. Bernard, female, 5 yrs

#### Medical history

- Chronic recurrent furunculosis bridge of the nose for 2 yrs
- Otitis externa on both sides
- Food allergy

#### Therapy management

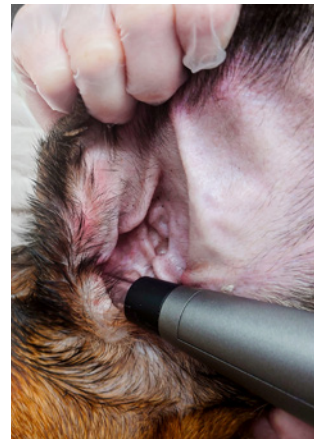
- Elimination diet
- **Bridge of the nose:** PetCellpen® 1× weekly for 3 weeks, 90 s per spot
- Glass electrode: Curved and disc
- Pulse frequency: 100 Hz
- Amplitude: 8
- **Ears:** PetCellpen® once under anesthesia after ear irrigation for 2 min
- Glass electrode: Curved and disc
- Pulse frequency: 100 Hz
- Amplitude: 6
- Hypochlorous acid ear cleansers, clotrimazole-dexamethason-marbofloxacin ear drops, marbofloxacin

#### Result

- The bridge of the nose is completely healed after 3 treatments
- Ears healed after 5 weeks with combination therapy of PetCellpen® at the beginning and local medication



Before



Ear treatment under anesthesia



After



## Case studies

### Chin furunculosis – Cat Robin

---

vetderm.ch – Dermatology and Allergology  
for Animals, Dr. med. vet. Dipl. ACVD & EBVS®  
European Specialist in Veterinary Dermatology  
Claudia Nett

ESH, neutered female, 10 yrs

#### Medical history

- Referred for chronic chin furunculosis for 3 months
- Pretreatment: 2× cefovecin, cortisone and prednisolone for 3 weeks, then cleavage of microabscesses and continued with cefovecin and prednisolone for 1 month
- Got better, but relapsed within a few days after tapering off prednisolone
- Dermatological findings chin: Swelling, erythema, hypotrichosis and 3 active boils with serosanguinous fistula exudate
- Diagnostics: Trichogram: Negative, cytology: Pyogranulomatous inflammation, + eosinophils and ++ cocci

#### Therapy management

- Black tea local SID
- PetCellpen® 2× weekly for 2 weeks
- Glass electrode: Disc
- Pulse frequency: 100 Hz
- Amplitude: 2–4

#### Result

- Healed without complications after 2 weeks



Before



After

## Case studies

### Trichophytosis lips and ear – Dog Jara

Dr. med. vet. Daniel Bösch  
Tierklinik Lindenhof, Obereggen-Muolen

Bergamosco x Bernese Mountain Dog, neutered  
female, 1.5 yrs

#### Medical history

- Farm dog
- Therapy resistant bloody crusts on both ears with roundish alopecia without itching as well as ulcerated areas on the lips on both sides
- Pretreatment: Miconazole-nitrate-polymyxin B-prednisolone ointment for several weeks
- Trichophyton PCR positive

#### Therapy management

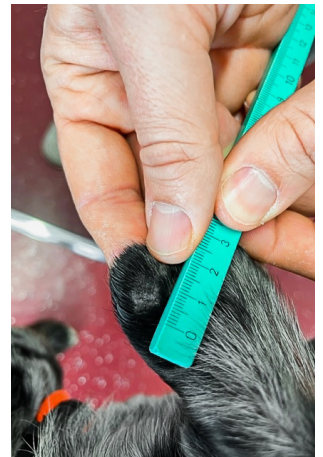
- PetCellpen® 2x weekly for 2 weeks, 3–5 min per site
- Glass electrode: Disc
- Pulse frequency: 100 Hz
- Amplitude: 4–6

#### Result

- Skin changes almost healed after only 2 weeks



*Ear before*



*Ear after*



*Lips before*



*Lips after*

## Case studies

# Papillomavirus-induced focal feline plaque – Cat Amiris

---

Dr. med. vet. Michael Hiestand  
Kleintierpraxis am Obersee, Altendorf

Maine Coon, neutered female, 9 yrs

### Medical history

- Inside of ear: Papillomavirus-induced focal feline plaque

### Therapy management

- PetCellpen® 1× weekly for 4 weeks, 10 min
- Glass electrode: Straight and curved
- Pulses: 100 Hz
- Amplitude: 6–8
- Chloramphenicol-nitrofurazone-prednisolone spray

### Result

- Complete healing after 5 weeks



*Before*



*Before the last treatment*



## Case studies

### Hotspot – Dog Firra

---

Dr. med. vet. Michael Hiestand  
Kleintierpraxis am Obersee, Altendorf

Labrador, female, 4 yrs

#### Medical history

- Weeping hotspot in front of the ear on the left
- Pretreatment: Antibiotic and fusidic acid-betamethasone ointment
- Owner's wish: Therapy without antibiotics if possible

#### Therapy management

- PetCellpen® as sole therapy 2× weekly for 2 weeks, 5 min
- Glass electrode: Disc
- Pulse frequency: 100 Hz
- Amplitude: 8

#### Result

- Itching and inflammation are significantly better after the first treatment
- Healed after 2 weeks



*Before*



*After 1 week*



*After 2 weeks*

## Case studies

### Fistula wound on the cheek – Cat Mia

---

vetderm.ch – Dermatology and Allergology  
for Animals, Dr. med. vet. Dipl. ACVD & EBVS®  
European Specialist in Veterinary Dermatology  
Claudia Nett

ESH, neutered female, 18 yrs

#### Medical history

- Hyperthyroidism and presumably CKD
- Referred for a fistulating wound about 0.5 cm in diameter on the left cheek with a hemorrhagic-purulent crust about 1 cm thick for 6 months
- Current medication: Thiamazole

#### Therapy management

- Local therapy with black tea to remove the crusts
- PetCellpen® 2× weekly for 3 weeks by the owners, 1–2 min
- Glass electrode: Straight
- Pulse frequency: 100 Hz
- Amplitude: 6–8

#### Result

- Fistula diameter smaller, wound calmer, crust less purulent and less thick, significantly less fistula secretion
- CT scan planned for root cause clarification



Before



After

## Case studies

### Pyodermia above the eye – Cat Melodie

Dr. med. vet. Michael Hiestand  
Kleintierpraxis am Obersee, Altendorf

ESH, neutered female, 1 yrs

#### Medical history

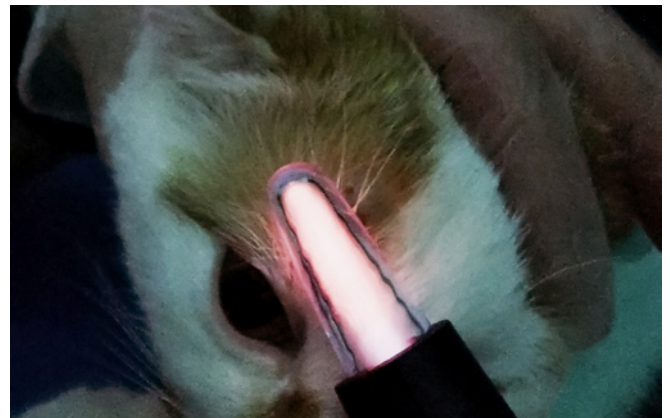
- Weeping pyoderma above the eye
- Patient has had AB several times due to infected bite injuries
- Topical treatment with ointments difficult due to localization
- Goal: To treat without antibiotics

#### Therapy management

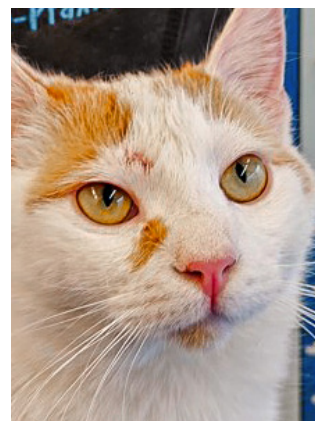
- PetCellpen® 2× in 3 days, 5 – 10 min  
1× after 7 days
- Glass electrode: Straight
- Pulse frequency: 80 Hz
- Amplitude: 4 – 6
- Very good therapy tolerance

#### Result

- Healing control after another 10 days:  
Complete healing



*After initial therapy*



*After 7 days*

## Case studies

# Pyodermia at the base of the ear – Cat Temperanillo

Dr. med. vet. Leslie Wohlgroth  
Katzen-Praxis.ch, Horgen

Maine Coon, neutered male, 12 yrs

### Medical history

- Deep pyoderma at the base of the ear
- Pretreatment: Cefovecin

### Therapy management

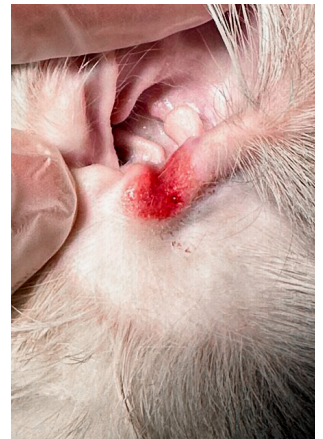
- PetCellpen® 1× weekly for 3 weeks, 4–5 min
- Glass electrode: Straight
- Pulse frequency: 100 Hz
- Amplitude: 6–8
- Cefovecin and betamethasone-florfenicol-terbinafine ear gel

### Result

- During the control after 2 weeks, a persistent foreign body was found in front of the ear and removed. Afterwards healed without complications within a week



*Before*



*Control after 2 weeks,  
foreign body removed*



*3 weeks after the start  
of therapy*



## Case studies

### Bite injury on the ear – Dog Onyx

---

Dr. med. vet. Michael Hiestand  
Kleintierpraxis am Obersee, Altendorf

Mongrel, neutered male, 8 months

#### Medical history

- 10 days ago bite injury to the right ear (edge of the ear and in the auricle)
- Pretreatment: Chlorhexidine ointment

#### Therapy management

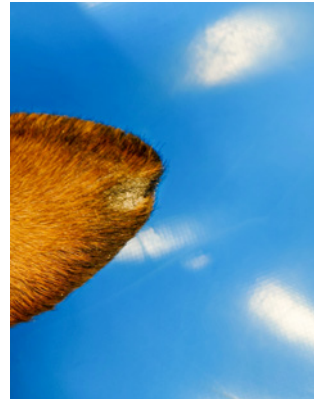
- PetCellpen® 1× weekly for 2 weeks, 6 min
- Glass electrode: Straight
- Pulse frequency: 100 Hz
- Amplitude: 8

#### Result

- Auricle injury after 1× PetCellpen® already healed, the ear margin wounds were significantly smaller after 1 week, were treated again and then healed completely



Before



After



## Case studies

### Vasculopathy of the pinnae – Dog Guinness

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for Animals, Dr. med. vet. Dipl. ACVD & EBVS®  
European Specialist in Veterinary Dermatology  
Claudia Nett

Beauçeron, neutered male, 9 yrs

#### Medical history

- Referred for therapy resistant idiopathic thrombovascular necrosis of the pinnae for 1 year
- Comes from Austria, otherwise no foreign anamnesis
- Pretreatment: Prednisolone, pentoxiphylline
- Dermatological findings: Inconspicuous except for the ears, bilateral necrosis of the ear margin with tissue loss at the tips of the pinnae, erosions, ulceration and thick crusts

#### Therapy management

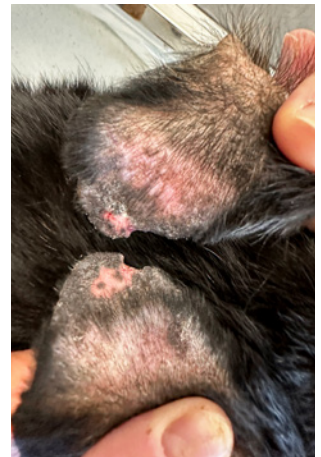
- Pentoxiphylline dose increased
- PetCellpen® 1x weekly for 3 weeks, 1 min
- Glass electrode: Disc
- Pulse frequency: 100 Hz
- Amplitude: 4 – 6
- Plaster for covering

#### Result

- Healed after 3 weeks, then reduction of pentoxiphylline. Recurrence after 10 days with renewed bleeding, scabs, ulceration
- Again with the PetCellpen® (glass electrode: Disc, pulse frequency: 100 Hz, amplitude: 6 – 8) and argon plasma, dose increase of pentoxiphylline, local therapy with colloidal silver and ointment from essential oils
- Healed then, but pentoxiphylline still needed



Before



After

## Case studies

### Fresh injury to the right upper arm – Southern tamandua

---

Dr. med. vet. Carolin Bunert  
Zoo veterinarian  
Zoo Duisburg gGmbH

Southern tamandua (small anteater), female,  
10 yrs

#### Medical history

- Fresh puncture or bite injury to the right upper arm
- Wounds connected by a channel under the skin

#### Therapy management

- Wounds rinsed with wound irrigation solution
- Meloxicam
- PetCellpen® once, 4 min
- Glass electrode: Curved
- Pulse frequency: 100 Hz
- Amplitude: 8

#### Result

- Wounds closed the next day, no further therapy necessary



## Case studies

### Postoperative scars, causes lameness – Dog Aschei

Dr. med. vet. Michael Hiestand  
Kleintierpraxis am Obersee, Altendorf

Pitbull, neutered female, 8 yrs

#### Medical history

- 1 year ago tumor excision right shoulder
- Partial suture dehiscence with secondary healing
- Keloid formation on 30 cm long scar
- Adhesions of the cutaneous keloid with fascia/muscles
- Chronic intermittent lameness as a result
- Patient avoids normal movements
- Patient no longer plays with other dogs

#### Therapy management

- PetCellpen® 2× weekly for 2 weeks and 1× weekly for 3 weeks, 15 min
- Glass electrode: Disc and curved
- Pulse frequency: 40 Hz
- Amplitude: 6–9

#### Result

- After 2–3 weeks reduction of lameness
- After 3 weeks keloid softer, excess keratin is rejected, more vital color
- After 5 weeks, no more lameness, normal mobility, plays normally again





## Case studies

# Infected bite injury, abscess, tissue necrosis – Cat Sherry

---

Dr. med. vet. Michael Hiestand  
Kleintierpraxis am Obersee, Altendorf

ESH, neutered female, 3 yrs

### Medical history

- Pretreated bite abscess, 10 days
- Surgical care: Drainage forearm to middle upper arm, rinses
- Previous antibiotics: Amoxicillin, ceftiofur, pradofloxacin, chloramphenicol
- Fever and spreading swelling, hard and painful
- Multidrug resistance, tissue necrosis started

### Therapy management

- PetCellpen® 2× first day and after 2 days, 10 min
- Glass electrode: Straight
- Pulse frequency: 40 and 80 Hz
- Amplitude: 4–8

### Result

- Repetition no longer necessary, heals



## Case studies

### Decubitus ulcer on the elbow, abscess – Dog Cora

Dr. med. vet. Leslie Wohlgroth  
Kleintierpraxis am Obersee, Altendorf

Labrador, neutered female, 11 yrs

#### Medical history

- Painful abscess on decubitus ulcer
- Granuloma was surgically removed from the same place 2 yrs ago
- Recurrent, treated with cefalexin
- Recurrence
- The owner does not want another operation and, if possible, no more antibiotics

#### Therapy management

- PetCellpen® 2× weekly for 1.5 weeks, 3–4 min
- Glass electrode: Straight
- Pulse frequency: 100 Hz
- Amplitude: 6–9

#### Result

- Has regressed





## Case studies

# Sterile furuncle on the left elbow and the left tarsus – Dog Mats

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for Animals, Dr. med. vet. Dipl. ACVD & EBVS®  
European Specialist in Veterinary Dermatology  
Claudia Nett

Beauçeron, male, 7 yrs

### Medical history

- Chronic, non-healing wounds on the elbow and tarsus on the left, wound on the tarsus not healing for 6 months
- No medication at the moment, overnight bandage
- Pretreatment: Amoxicillin/clavulanic acid for 3 weeks and meloxicam, not really better with this treatment
- Dermatological examination: On the left elbow callus skin alopecic and edematous with 2 superficial wounds, lateral metatarsus highly inflamed and edematous with multiple fistulas with a large amount of serohemorrhagic exudate, alopecic, edematous and spongy, cytology: Severe pyogranulomatous inflammation with eosinophils, no bacteria
- Diagnosis: Sterile pyogranulomatous furunculosis

### Therapy management

- Prednisolone and locally applied phenolsulfonic acid-phenol-urea-formaldehyde condensate
- PetCellpen® 2–3× weekly (owner has rental equipment) for 8 weeks, 4–5 min
- Glass electrode: Disc
- Pulse frequency: 100 Hz
- Amplitude: 6–8
- Shampoo 1× weekly

### Result

- After the first PetCellpen® application, the elbow callus has already been calmed down, no more bleeding, 1 active fistula remains on the tarsus

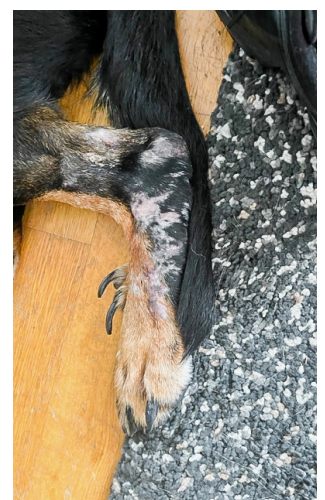
- Owner has reported that their pet has severe itching after using the PetCellpen®
- Checkup after 1 month: Great improvement, elbow is completely healed, on the tarsus there are still 3 active fistulas
- Allergy assessment: Exclusion diet for possible underlying food allergy



Before



Before



After

## Case studies

### Lick ganuloma carpus – Dog Nora

Dr. med. vet. Daniel Bösch  
Tierklinik Lindenhof, Oberegg-Muolen

Hovawart, female, 11 yrs

#### Medical history

- Chronic thickened carpus due to licking
- 2 yrs ago, further tests were undertaken (mixed cell inflammation) and treated with cefalexin and prednisolone
- Current: Leakage of sero-sanguinous fluid from several openings, cytologically mainly neutrophils, no pain

#### Therapy management

- PetCellpen® 2× weekly for 4 weeks, 4 sites of 90 s each
- Glass electrode: Curved
- Pulse frequency: 100 Hz
- Amplitude: 8–9

#### Result

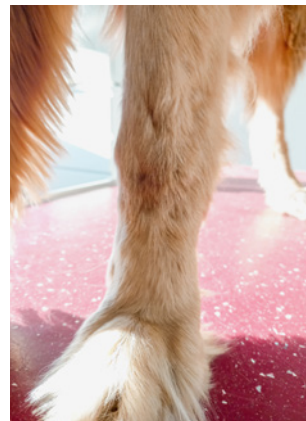
- Healed without complications



*Before*



*Last treatment*



*11 weeks after treatment was initiated, 7 weeks after cessation of PetCellpen® therapy*

## Case studies

# Abscess caused by plasma cellular pododermatitis – Cat Jimmi

Dr. med. vet. Michael Hiestand  
Kleintierpraxis am Obersee, Altendorf

ESH, neutered male, 9 yrs

### Medical history

- Plasma cellular pododermatitis on cortisone for years
- FeLV/FIV negative
- Chronic recurrent abscess on one paw
- Resistance to therapy despite various antibiotics according to antibiogram
- Trial of long-term therapy with tetracycline is underway

### Therapy management

- PetCellpen® during surgery 10 min and 1× 10 min when dressing is changed
- Glass electrode: Curved
- Pulse frequency: 100 Hz
- Amplitude: 8
- Continue tetracycline

### Result

- Significant improvement can be seen after just 5 days
- Progression wound healing well, fully healed after 2 weeks
- No new abscess developed



Before



3 weeks after surgery

## Case studies

### Interdigital dermatitis – Dog Lord

---

Dr. med. vet. Michael Hiestand  
Kleintierpraxis am Obersee, Altendorf

Pug, neutered male, 11 yrs

#### Medical history

- Interdigital dermatitis after food change
- History of repeated ABx due to respiratory infections
- Goal: To treat without antibiotics
- Changing the food again

#### Therapy management

- PetCellpen® 2× weekly for 1 week, 90 sec per site
- Glass electrode: Straight
- Pulse frequency: 100 Hz
- Amplitude: 4

#### Result

- Control after one week: Almost completely healed





## Case studies

# Multiple toe fractures with soft tissue injury following HBC – Dog Clarissa

Dr. med. vet. Vanessa Schifferle-Bachmann  
Tierarztpraxis zur Schmiede, Henggart

Standard schnauzer, neutered female, 10 yrs

### Medical history

- Multiple toe fractures with soft tissue injury on both hind paws following HBC (Hit by a car)
- Goal: Avoid toe amputation, rapid wound healing

### Therapy management

- Stabilization of the patient and immediate surgical treatment of the wounds
- Paw bandages on both hind limbs
- PetCellpen® therapy when dressing is changed, 3× weekly for 4 weeks, 5 – 10 min
- Glass electrode: Straight and disc
- Pulse frequency: 70 Hz
- Amplitude: 5

### Result

- Soft tissue injury heals after 1 month
- After 7 weeks, the injuries are completely healed



Before



Before



After



## Case studies

### Torn claw – Dog Saya

---

vetderm.ch – Dermatology and Allergology  
for Animals, Dr. med. vet. Dipl. ACVD & EBVS®  
European Specialist in Veterinary Dermatology  
Claudia Nett

Great dane, neutered female, 5 yrs

#### Medical history

- Claw torn
- Complete claw removal at a private veterinarian
- Wound heals hesitantly
- No medication, only bandage therapy

#### Therapy management

- One-time PetCellpen® therapy
- Glass electrode: Straight
- Pulse frequency: 100 Hz
- Amplitude: 4–6
- Bandage therapy as before

#### Result

- Healed 3 days after PetCellpen® therapy



*Before*



*In healing after treatment with the PetCellpen®*

## Case studies

### Hotspot – Dog Charlie

---

Dr. med. vet. Michael Hiestand  
Kleintierpraxis am Obersee, Altendorf

Golden retriever, neutered male, 1.5 yrs

#### Medical history

- Multiple hotspots

#### Therapy management

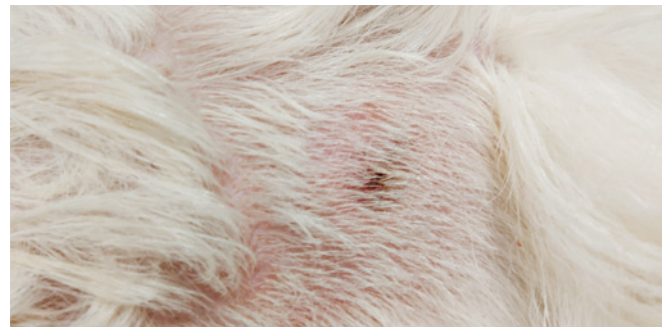
- PetCellpen® 1× weekly for 2 weeks, 15 min
- Glass electrode: Straight and disc
- Pulse frequency: 100 Hz
- Amplitude: 9
- Chlorhexidine shampoo

#### Result

- Healed after 2 weeks



*Before*



*After 1 week*

## Case studies

### Hotspot – Dog Baddy

---

Dr. med. vet. Michael Hiestand  
Kleintierpraxis am Obersee, Altendorf

Bohemian shepherd, neutered male, 7 yrs

#### Medical history

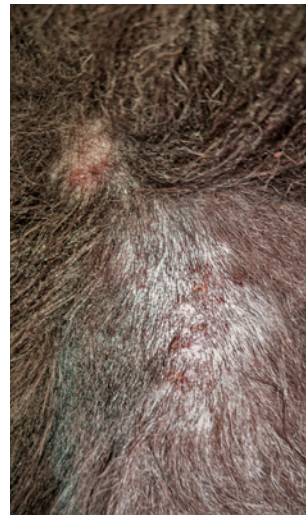
- Recurrent hotspots
- Special diet due to food allergy
- Regular flea and tick prophylaxis
- Because of the GI side effects, the owners want to do without a new course of antibiotics

#### Therapy management

- PetCellpen® 1–2× weekly for 5 weeks, 15 min
- Glass electrode: Curved, straight and disc
- Pulse frequency: 100
- Amplitude: 8
- Polycresulen ointment, chlorhexidine pads

#### Result

- Healed after 5 weeks



Before



After

## Case studies

### Suture dehiscence – Chinchilla Eywa

---

Dr. med. vet. Michael Hiestand  
Kleintierpraxis am Obersee, Altendorf

Chinchilla, female

#### Medical history

- Chinchilla with multiple bite wounds, several centimeters long
- 2× suture dehiscence in 11 days, severe wound secretion
- Previous treatment: Cefovecin and meloxicam

#### Therapy management

- Surgical care
- PetCellpen® 2× weekly for 1 week, 6 min per site
- Glass electrode: Straight
- Pulse frequency: 100 Hz
- Amplitude: 8
- Chloramphenicol

#### Result

- At the check-up after 3 days already much better and dried





## Case studies

# Neuropathic pain at the thoracolumbar junction – Cat Chili

---

Dr. med. vet. Michael Hiestand  
Kleintierpraxis am Obersee, Altendorf

ESH, neutered male, 8 yrs

### Medical history

- Post traumatic, unclear genesis
- Bunion injury treated surgically
- Extreme pain at thoracolumbar junction
- Chili “freaks out”, bites when touched
- Hyperesthesia of the skin
- Radiology negative
- Therapy resistant despite NSAIA, dexamethasone, metamizole and butorphanol

### Therapy management

- PetCellpen® daily for 7 days, 10 min
- Glass electrode: Curved
- Modulating program
- Therapy acceptance achieved after a few minutes
- Can be touched after the first treatment

### Result

- Stopped after 7 days of therapy
- Symptom free for 1 year





## Case studies

### Abscess on the flank – Dog Doro

Dr. med. vet. Michael Hiestand  
Kleintierpraxis am Obersee, Altendorf

Small lucerne hound, neutered female, 3 yrs

#### Medical history

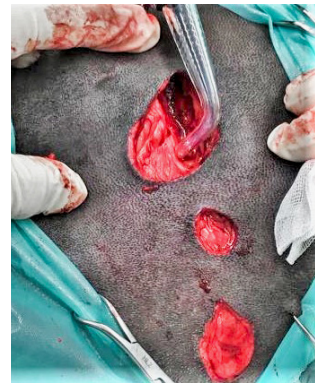
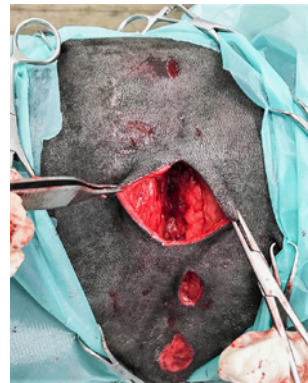
- Cavernous abscess thoracolumbar right dorsal above the last costal arch, treated surgically and with amoxicillin/clavulanic acid 4 months ago, a small swelling remained
- Recurrence with renewed swelling. Ultrasound results: Diffuse loosening of the structure over the entire right flank, fluid accumulations, no capsule can be displayed. Cytology: Many highly degenerated neutrophils, many foreign body giant cells, many foamy macrophages with strongly blue colored granules, no evidence of neoplasia

#### Therapy management

- Surgical
- Intra-operative PetCellpen® therapy, 15 min
- Glass electrode: Curved
- Pulse frequency: 100 Hz
- Amplitude: 8
- Cefalexin, marbofloxacin

#### Result

- Recurrence of swelling despite antibiotics
- Follow-up treatment with the PetCellpen® 2x weekly for 2 weeks (glass electrode: Curved, pulse frequency: 100 Hz, amplitude: 9), 15 min
- Complete healing



1 year after surgery

## Case studies

### Hotspot – Dog Luna

---

Dr. med. vet. Juna Gutknecht  
Tierzentrum Tierärzte GmbH, Basadingen

German shepherd, neutered female, 5 yrs

#### Medical history

- Large hotspot in the flank on the left for 2 days

#### Therapy management

- PetCellpen® as sole therapy 3× weekly for 1 week, 4–6 min
- Glass electrode: Curved and disc
- Pulse frequency: 100 Hz
- Amplitude: 8–9

#### Result

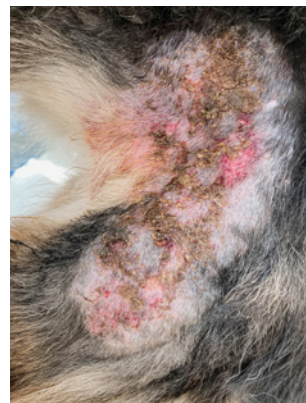
- All dried after first treatment
- Itching significantly reduced after first treatment
- Healed after 3 treatments



*Before 1st treatment*



*Before 2nd treatment*



*Before 2nd treatment,  
after crust removal*



*Before 3rd treatment*

## Case studies

### Spondylosis at the lumbar spine – Dog Holly

---

Dr. med. vet. Michael Hiestand  
Kleintierpraxis am Obersee, Altendorf

Boxer, neutered female, 6 yrs

#### Medical history

- Spondylosis lumbar spine, severe
- Despite NSAIDs arched back

#### Therapy management

- PetCellpen® 1× weekly for 2 weeks, 15 min
- Glass electrode: Curved
- Pulse frequency: 20 Hz
- Amplitude: 8

#### Result

- Immediate visible reduction of pain
- After 1 – 2 weeks improvement of general symptoms



## Case studies

### Back pain – Cat Amiris

---

Dr. med. vet. Michael Hiestand  
Kleintierpraxis am Obersee, Altendorf

Maine Coon, neutered female, 9 yrs

#### Medical history

- Severe dorsal pain, incipient spondylosis of the lumbar spine

#### Therapy management

- PetCellpen® 1× weekly for 3 weeks, then again after 2 weeks, 15 min distributed over 3 pain points
- Glass electrode: Curved
- Modulating program
- Frunevetmab, gabapentin

#### Result

- Cat can be petted normally again after first treatment
- Significant and progressive improvement in gait pattern over 4 weeks





## Case studies

### Torn claw – Agile wallaby

Dr. med. vet. Carolin Bunert  
Zoo veterinarian  
Zoo Duisburg gGmbH

Agile wallaby, female, 2 yrs

#### Medical history

- Traumatic injury to the right main toe
- Clawed horn and parts of the clawed bone are absent, swelling of soft tissue

#### Therapy management

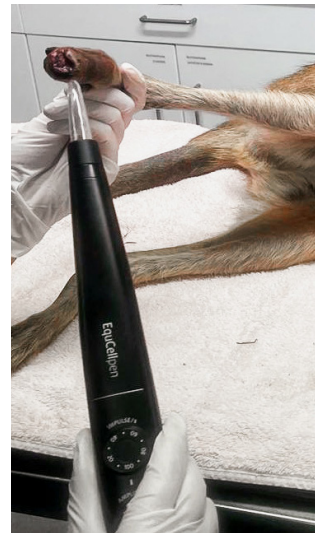
- Surgical care: Amputation of claw bone remnants
- Wound left open, wound dressing applied (wound dressing only necessary for 2 weeks)
- Medication in the first two weeks: Enrofloxacin and meloxicam
- PetCellpen® 2x weekly for 3 weeks, 4 – 5 min
- Glass electrode: Curved
- Pulse frequency: 100 Hz
- Amplitude: 8

#### Result

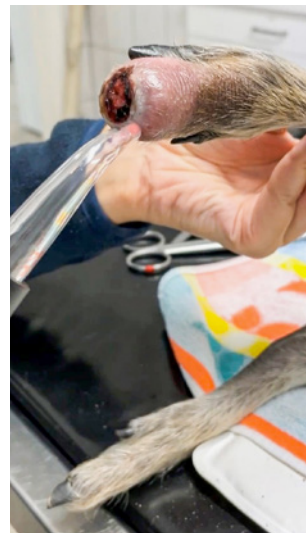
- Wound healed within 3 weeks



Before



Before



After 2 weeks

## Case studies

# Impaired wound healing of amputated stump – Dog Momo

Dr. med. vet. Michael Hiestand  
Kleintierpraxis am Obersee, Altendorf

Mongrel, neutered male, 6 yrs

### Medical history

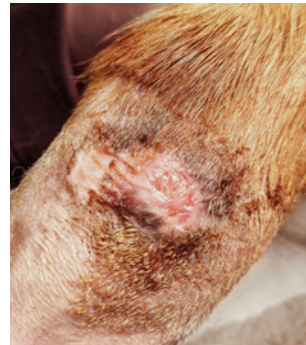
- Animal welfare dog from Spain after unconventional amputation
- Wound healing problems due to sequestra, multidrug resistant germs (MRSA) and chronic pressure ulcers due to prosthese
- All antibiotics discontinued due to multidrug resistance

### Therapy management

- Surgically removed sequestra and prosthesis fitted
- PetCellpen® 1– 2 × weekly for 4 weeks, 10 min
- Glass electrode: Curved and disc
- Pulse frequency: 100 Hz
- Amplitude: 6 – 8
- Hypochlorous acid cleansers, policresulen, honey ointment pads and meloxicam

### Result

- Good healing process



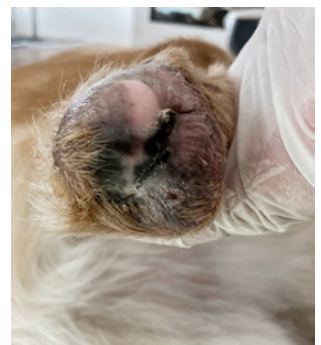
*Pressure ulcers before*



*Amputation stump before*



*Pressure ulcers after*



*Amputation stump after*

## Case studies

### Scrotum pyoderma – Dog Kyle

---

Dr. med. vet. Daniel Bösch and  
Dr. med. vet. Fabienne Veillard  
Tierklinik Lindenhof, Obereggen-Muolen

American Collie, male, 11 months

#### Medical history

- Scrotum inflamed and painful due to licking

#### Therapy management

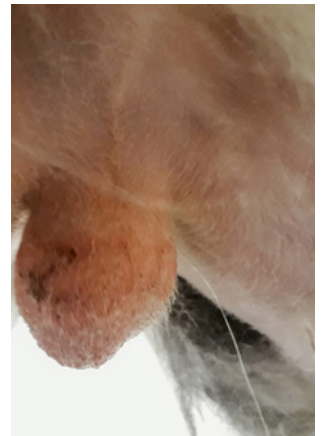
- Pretreatment: Cefalexin, carprofen and chlorhexidine locally
- Due to vomiting, antibiotic therapy was discontinued prematurely. Treatment was switched to 2× PetCellpen® applied at intervals of 3 days, 90 s per site
- Glass electrode: Disc
- Pulse frequency: 80 – 100 Hz
- Amplitude: 8 – 9

#### Result

- Healed without complications



Before



After

## Case studies

### Perianal abscess – Dog Age

---

Dr. med. vet. Michael Hiestand  
Kleintierpraxis am Obersee, Altendorf

Malinois mix, male, 11 yrs

#### Medical history

- Perianal abscess next to anus, about 0.5 cm in diameter

#### Therapy management

- Abscess irrigation
- PetCellpen® 2× weekly for 1 week, 10 min
- Glass electrode: Straight
- Pulse frequency: 100 Hz
- Amplitude: 8
- Cefalexin for 7 days

#### Result

- Healed without complications





## Case studies

### Fistulising anal gland inflammation – Dog Logan

---

vetderm.ch – Dermatology and Allergology  
for Animals, Dr. med. vet. Dipl. ACVD & EBVS®  
European Specialist in Veterinary Dermatology  
Claudia Nett

White shepherd, male, 6 yrs

#### Medical history

- Chronic fistula for several months after an anal gland abscess on the left

#### Therapy management

- PetCellpen® 2× weekly for 2 weeks, 3 – 4 min
- Glass electrode: Disc
- Pulse frequency: 100 Hz
- Amplitude: 8 – 9

#### Result

- Fistula almost closed after the first treatment



## Case studies

### Anal gland abscess with fistula – Dog Beans

Dr. med. vet. Michael Hiestand  
Kleintierpraxis am Obersee, Altendorf

Pomeranian mix, neutered male, 8 yrs

#### Medical history

- Recurrent anal gland abscesses for the last 1.5 yrs
- Chronic problem with fistula development
- Repeated courses of antibiotic and rinses
- Locally applied antibiotic ointments
- Therapy resistant

#### Therapy management

- PetCellpen® 2× weekly for 1.5 weeks, 10 min
- Glass electrode: Curved
- Pulse frequency: 100 Hz
- Amplitude: Increasing 6 to 9
- Rinsing with policresulen during initial treatment

#### Result

- Heals within 3 – 4 weeks



## Case studies

# Inflammation of the tail gland (supracaudal gland) – Dog Niamh

---

Dr. med. vet. Leslie Wohlgroth  
Kleintierpraxis am Obersee, Altendorf

Labradoodle, neutered female, 11 yrs

### Medical history

- Painful chronic inflammation of the tail gland
- Abscess
- Comedone formation locally and generalized on the body
- Operated once 2 yrs ago (excision)
- The owner is not considering another operation for the pet

### Therapy management

- Emptying of the largest comedones during initial treatment
- PetCellpen® as sole therapy 2× weekly for 2 weeks, 20 min
- Glass electrode: Curved
- Pulse frequency: 100 Hz
- Amplitude: 6–9

### Result

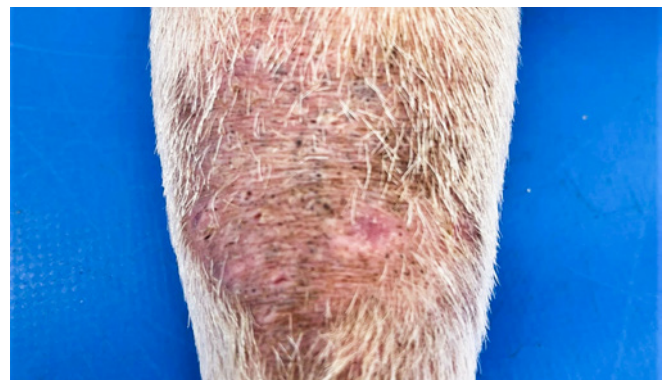
- Heals within 2 weeks



*Initial treatment*



*After initial therapy*



*After 2 weeks*

## Case studies

### Limber tail – Dog Bessy

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Dr. med. vet. Michael Hiestand  
Kleintierpraxis am Obersee, Altendorf

Airedale terrier, neutered female, 8 yrs

#### Medical history

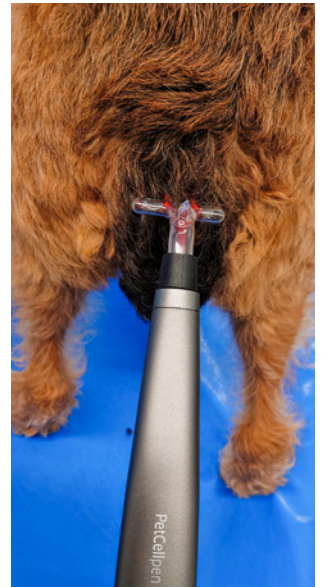
- Can't lift tail anymore, severe pain

#### Therapy management

- Meloxicam and metamizole
- PetCellpen® single use, 10 min
- Glass electrode: Comb
- Pulse frequency: 40 Hz
- Amplitude: 8

#### Result

- No follow-up treatment necessary, as tail lifting is possible again when going out





## Case studies

### Hotspot on the tail – Dog Jecko

---

Dr. med. vet. Michael Hiestand  
Kleintierpraxis am Obersee, Altendorf

German wirehair, male, 9 yrs

#### Medical history

- Hotspot on the tail

#### Therapy management

- PetCellpen® 1× kick-off therapy
- Glass electrode: Disc
- Pulse frequency: 100 Hz
- Amplitude: 8
- Cefalexin for 14 days, polycresulen ointment

#### Result

- Healed without complications



Before



After

## Case studies

### Hotspot on the tail – Dog Toby

vetderm.ch – Dermatology and Allergology  
for Animals, Dr. med. vet. Dipl. ACVD & EBVS®  
European Specialist in Veterinary Dermatology  
Claudia Nett

Springer spaniel, male, 9 yrs

#### Medical history

- Had furunculosis over the supracaudal gland, which has healed
- New: Gnawing on the tail, around supracaudal gland papules, crusts and erosions
- Pretreatment: Local therapy with hydrocortisone spray, shampoo with chlorhexidine and miconazole, zinc- and copper-sulfate-zinc-oxide ointment
- Neck collar at night, bandage during the day

#### Therapy management

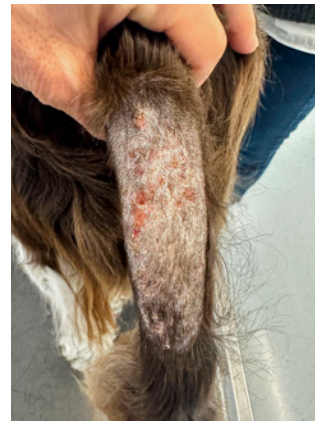
- PetCellpen® 1 – 2× weekly for 2 weeks, 3 min
- Glass electrode: Disc
- Pulse frequency: 100
- Amplitude: 9
- Continue with the chlorhexidine and miconazole shampoo every 2 days

#### Result

- Healed after 2 weeks



Before



After 4 days



After



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