A brand of Pacem Technology

COLD FUSION

2025

Presented By

Pacem Technology

Products and Case Studies for Pet Applicatios

pacem Veterinary

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Pacem Technology

Pacem Technology, based in Izmir and established in 2018 with the support of TÜBİTAK, offers pioneering solutions in the development of cold atmospheric plasma products through its R&D activities in Turkey and the UK. The team, consisting of experienced scientists, engineers, and experts, ensures that cold atmospheric plasma plays a beneficial role in science, industry, clinics, and at home.

Pacem provides painless and rapid treatment opportunities without the use of any drugs by employing plasma in its cold form for health-related platform technologies.

Furthermore, Pacem offers services in solving technological and industrial problems and in implementing R&D projects. With its innovative solutions, it provides R&D and consultancy services in medical, electronic, embedded systems, software, and engineering fields.

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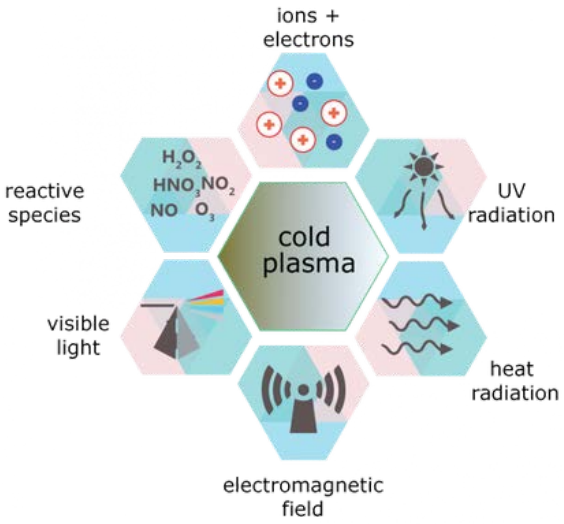
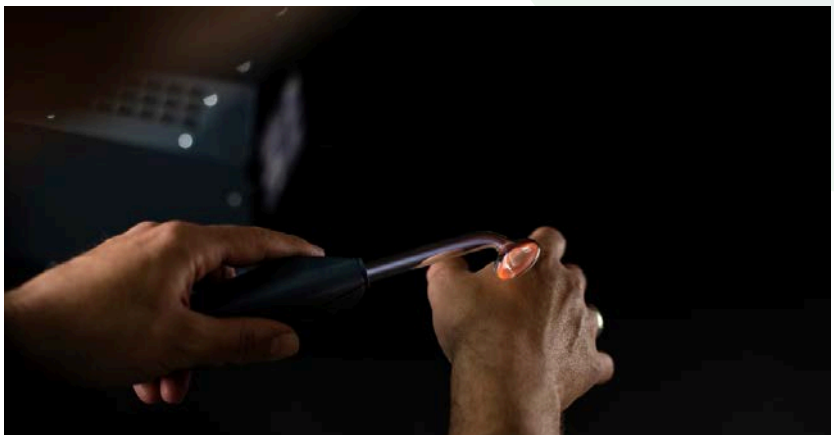
Cold Plasma

Cold atmospheric plasma is a type of plasma that occurs at low temperatures (usually at room temperature). Plasma is known as the fourth state of matter and is formed by ionizing the atoms in a gas state (partially or completely removing their electrons). In cold atmospheric plasma, the temperature of the plasma is close to the ambient temperature, which makes it useful in various applications such as medical treatments, surface treatments, and air disinfection.





Cold plasma, having a lower risk of damaging living tissues compared to high-energy plasmas, is particularly attracting interest in the field of medicine. It holds potential for use in areas such as wound healing, cancer treatment, and sterilization. Additionally, it plays a significant role in industrial processes, surface treatments, and material science applications. Cold plasma is generated with devices that operate at room temperature, thereby allowing for a broader range of applications.

Advantages

- Low-cost
- Environmental friend
- Enhanced application
- Fast-treatment
- No Antibiotics

Applications of Cold Plasma

- Wound healing
- Cancer treatment
- Sterilization and Disinfection
- Surface modifications of materials
- Surface coating and Processing

Cold Plasma and Vet

Cold atmospheric plasma is an innovative technology that has recently begun to be used in veterinary applications. This technology allows for various treatment and sterilization processes by using plasma at low temperatures.

Application Advantages

1. **Accelerating Wound Healing:** Cold plasma speeds up the wound healing process, reducing the risk of infection.
2. **Anti-Inflammatory Effect:** Plasma can effectively reduce inflammation, especially in skin disorders and allergies.
3. **Low Temperature:** Cold plasma is applied without causing tissue damage.
4. **Fast and Effective:** Provides high-level antimicrobial properties in a short time.
5. **No Chemicals Required:** Safer than traditional disinfectants as it does not contain chemicals and does not require the use of any drugs.
6. **No Harm to Tissues:** Can be applied without damaging living tissues, making it particularly suitable for sensitive treatments

Application Areas

Dermatology

- Abrasions and pressure ulcers
- Mallenders (skin condition in horses)
- Angular cheilitis (mouth corner sores)
- Scar treatments
- Saddle sores
- Pruritus (itching)
- Problems in wound healing
- Burns
- Chronic wounds

Surgical Operations

- Sterilizing areas before and after surgery.

Dental Applications

- Sterilization in oral and dental health practices.

Smart Systems

Modern Therapy, Plasma Touch: In-depth treatment, Wide Parameters and Application Areas Pacem Vet Source (CAP-Vet-Source 010121)

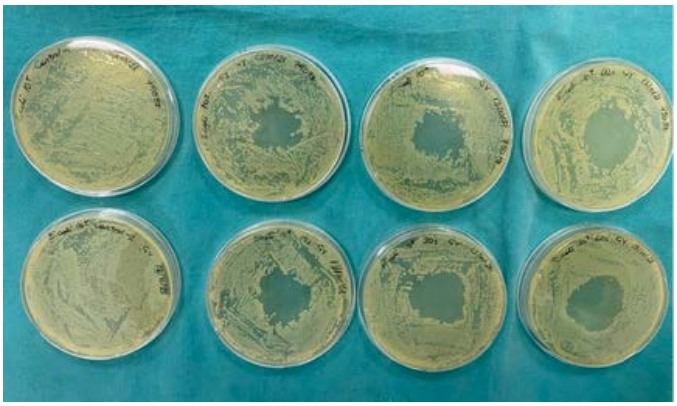
Model: CAP-Vet-Source 010121
Brand: Pacem Vet Source
Device Type: Cold Atmospheric Plasma, Plasma Jet
Intended Use: Wound healing, pressure ulcers, non-healing deep wounds, sterilization, anti-inflammatory treatments, surgical applications
Technical Specifications:
Power Source: Electricity (AC 110-240V, 50/60Hz)
Power Consumption: 3000 W
Operating Frequency: 100 Hz - 3kHz
Plasma Generation Technology: Dielectric barrier discharge, Plasma Jet
Output Gas: Air, Argon, Helium, Hydrogen
Output Temperature: 28 - 35°C (temperature non-damaging to tissue)
Operating Modes: Continuous, Pulsed
Power Button: Yes
Ground Electrode: Yes
Mode Selection: HMI touch screen

Certifications: CE, ISO
Biocompatibility: Yes
Application Heads: 3
User Manual: 1 piece
Electrode Apparatus: 1 piece
Power Cord: 1 piece
Warranty Certificate: 1 piece

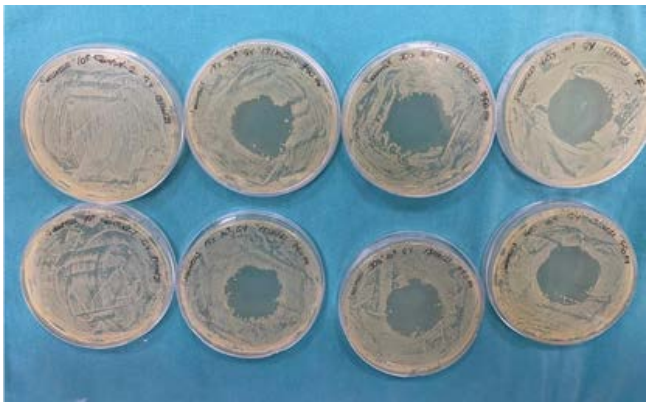
Manufacturer Support:
Warranty Period: 2 Years
Customer Service: Rental or Sale
Technical Support: Throughout product life cycle

In-vitro Studies

Anti-microbial effects



E. coli



S. aureus

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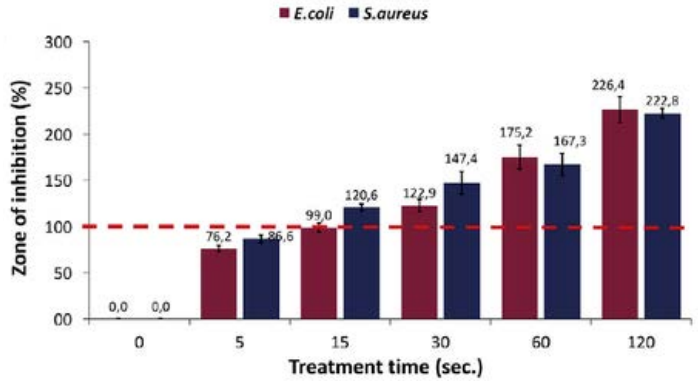
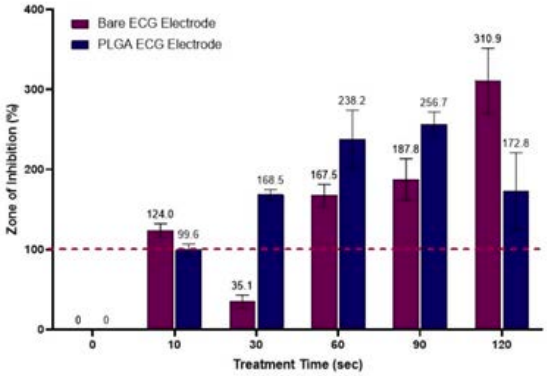
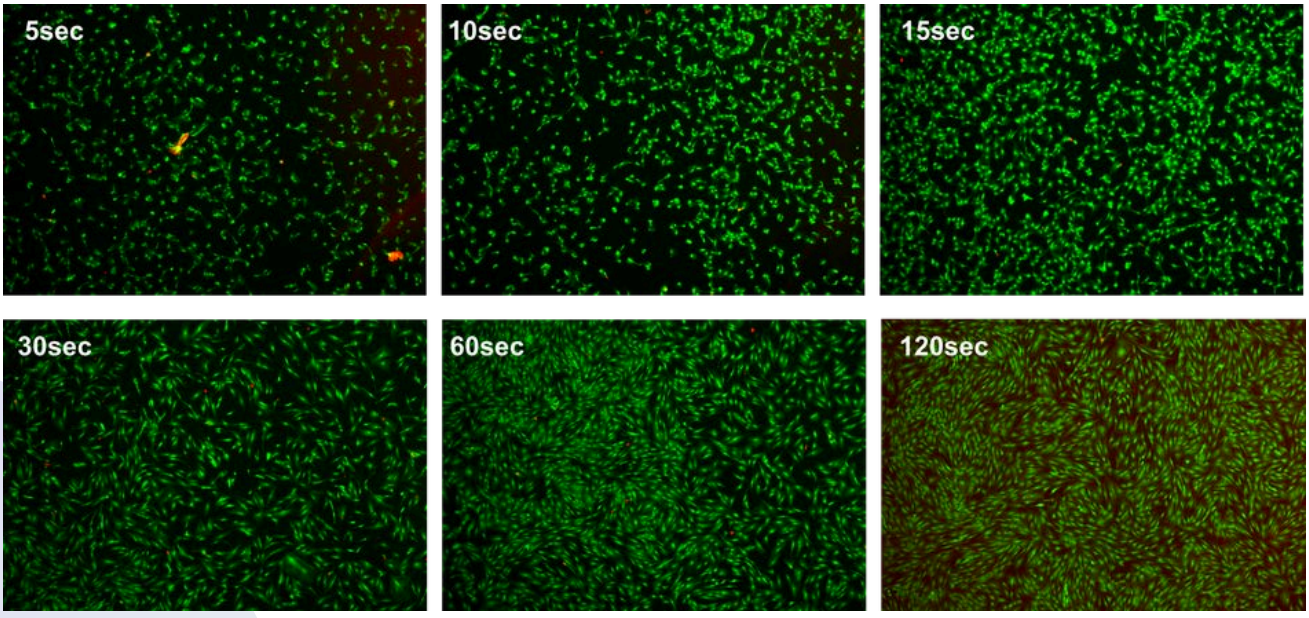


Zone of Inhibition



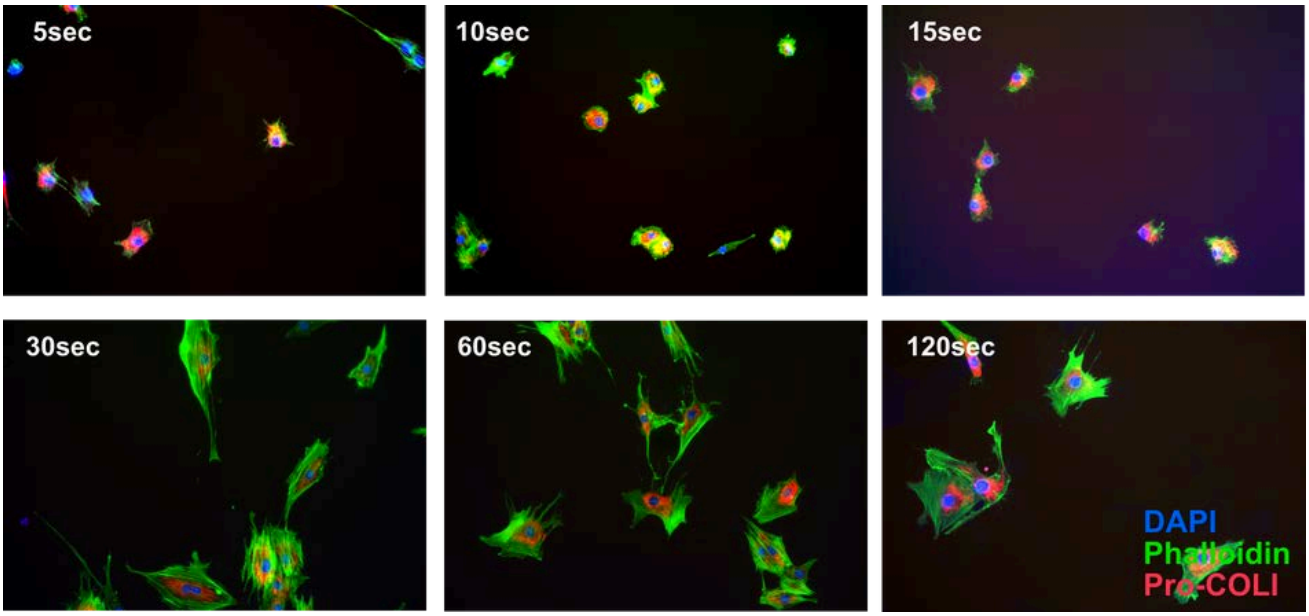
Farklı elektrotlar ile Zone of Inhibition

Viability and DNA content

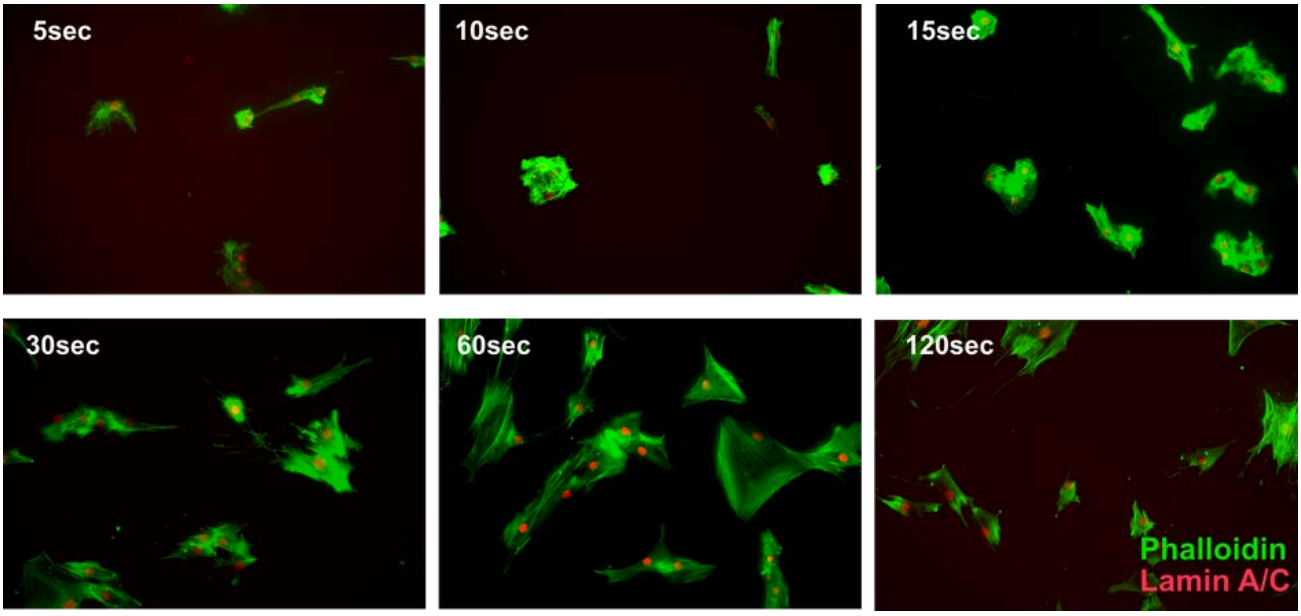


In-vitro Studies

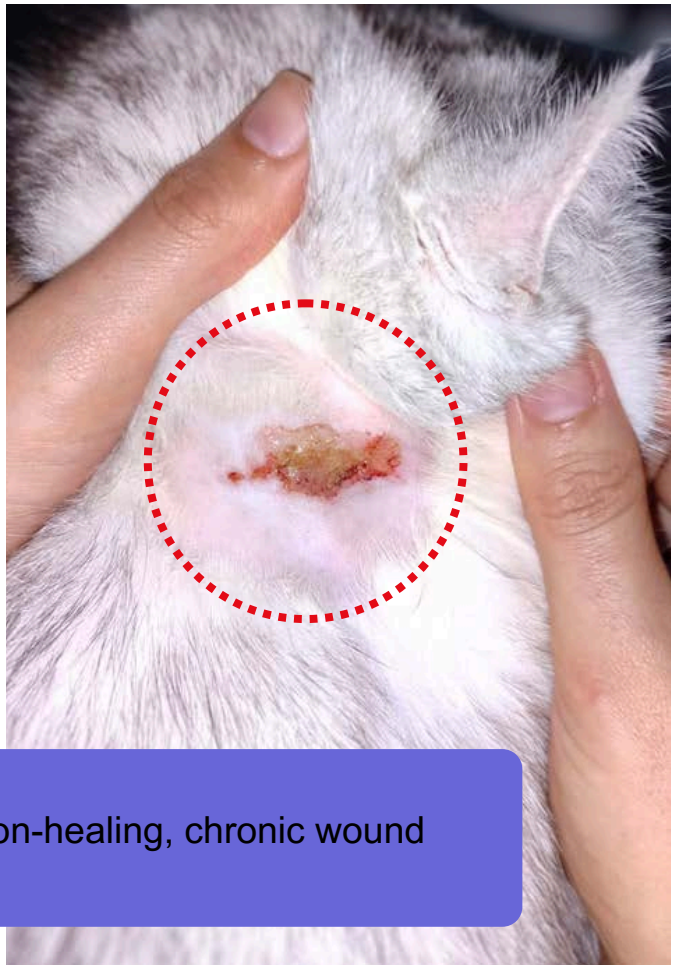
Collagen



Lamin/AC



Case Studies



Non-healing, chronic wound

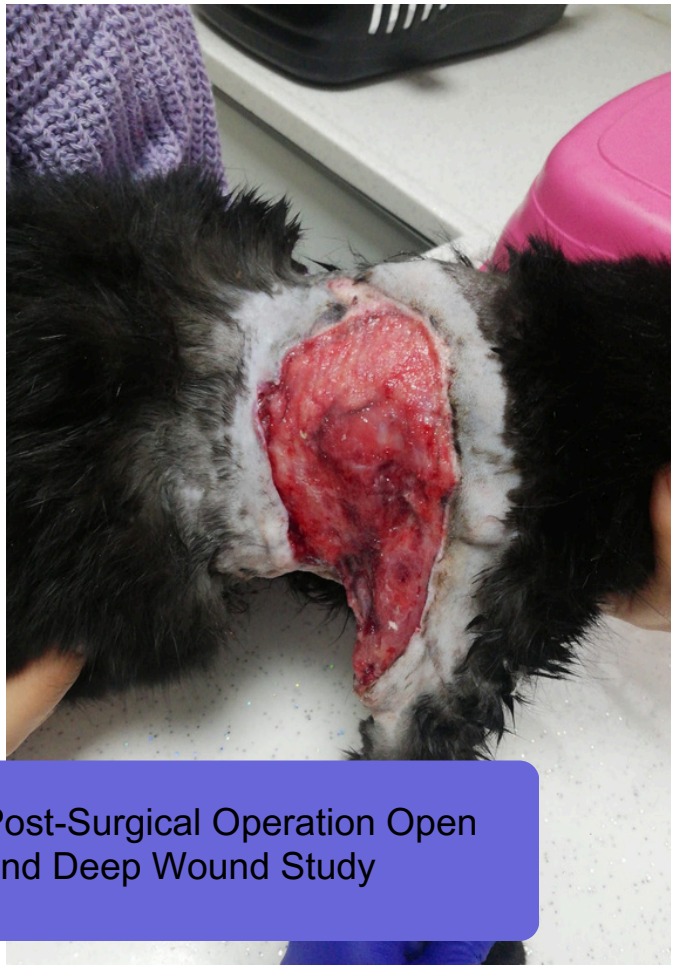
Before

After

Case: British Shorthair - 5 years old
Medical History: Non-healing and recurrent chronic wound

Treatment Method: Duration: 3 days a week, 3-minute sessions - 10 days
Device: MCAP-010123
Electrode: Mushroom
electrode Mode: 4kV, 700Hz
Medication use: None

Case Studies



Post-Surgical Operation Open and Deep Wound Study

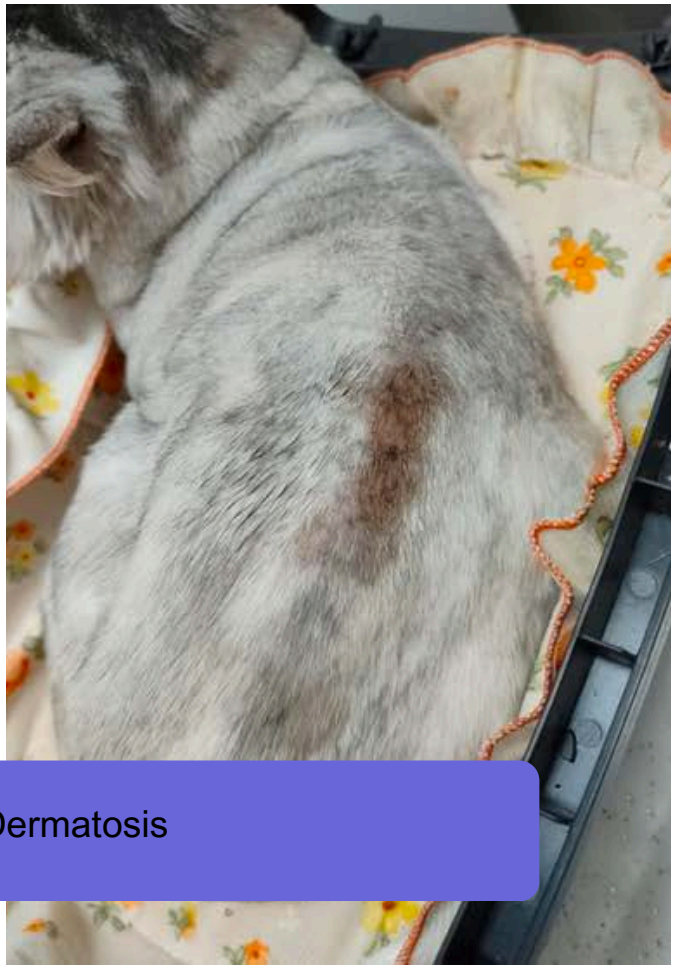
Before

After

Case: Tabby - 3 years old
Medical History: Open wound

Treatment Method:
Duration: 3 days a week, 3-minute sessions - 10 days
Device: CAP-Vet-Source 010121
Electrode: Mushroom electrode
Mode: 10kV, 700Hz
Medication use: Antiseptic cleaner

Case Studies



Dermatosis

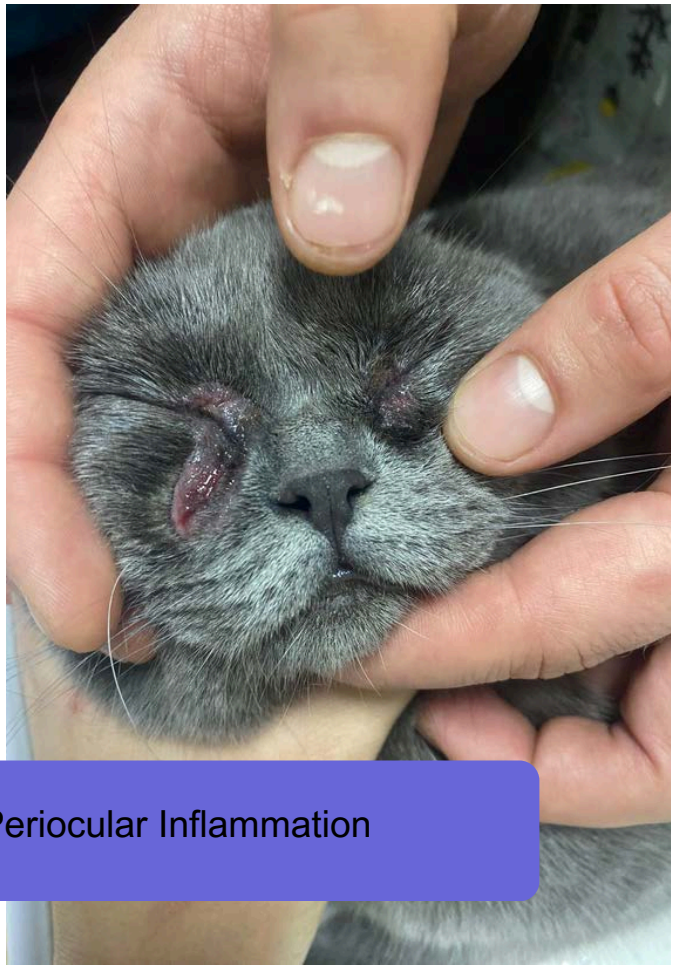
Before

After

Case: British Longhair - 1.5-2 years old
Medical History: Recurrent eczema following shaving

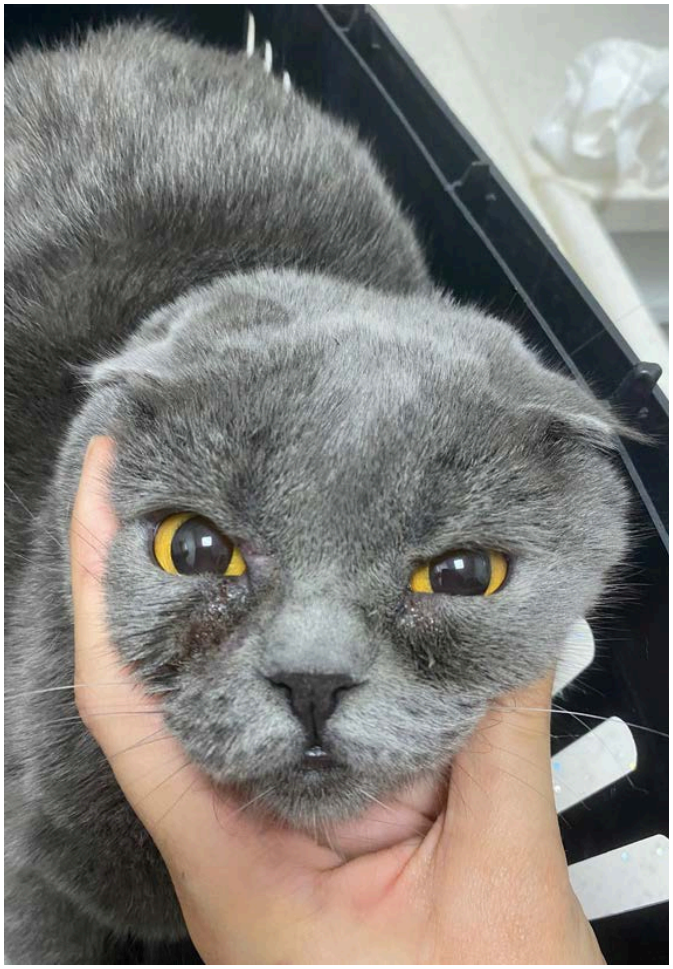
Treatment Method:
Duration: 3-minute sessions - 5 days
Device: MCAP-010123
Electrode: Mushroom electrode
Mode: 4kV, 700Hz
Medication use: None

Case Studies



Periocular Inflammation

Before

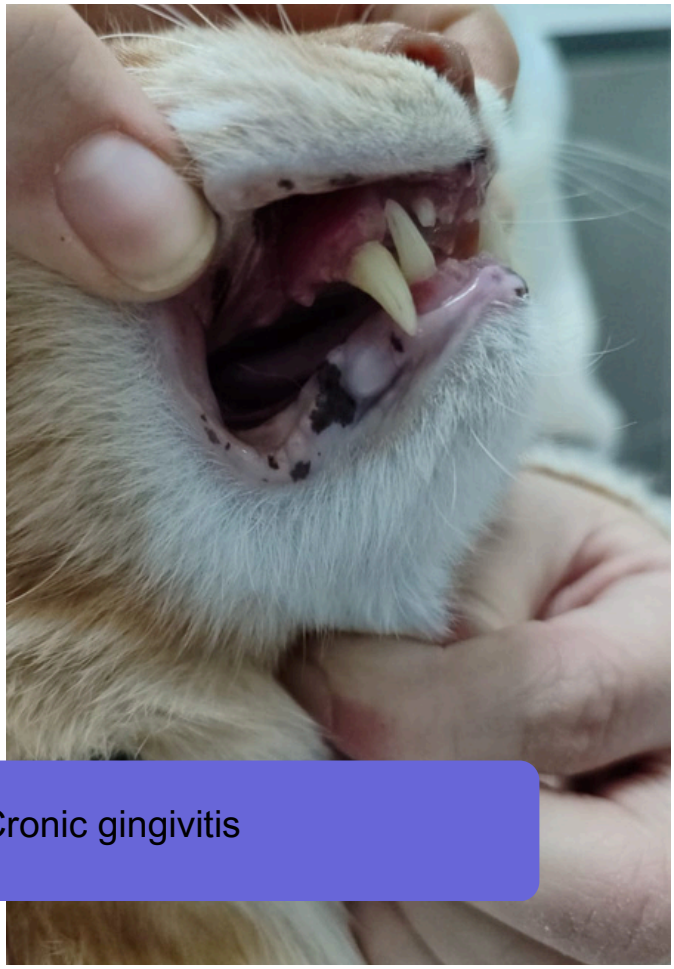


After

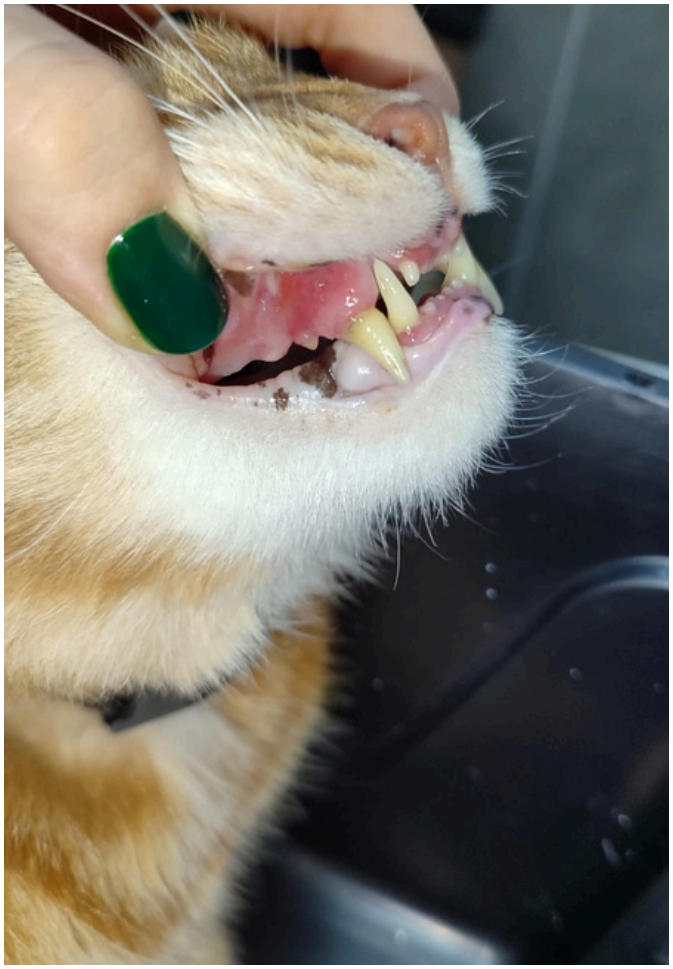
Case: British Longhair - 1.5-2 years old
Medical History: Recurrent eczema following shaving

Treatment Method:
Duration: 3-minute sessions for 2 days
Device: MCAP-010123
Electrode: Mushroom electrode
Mode: 4kV, 700Hz Medication use: None

Case Studies



Cronic gingivitis



Before

After

Case: British Longhair - 1.5-2 years old
Medical History: Cronic gingivitis
Treatment Method:
Duration: 3-minute sessions for 4 days
Device: MCAP-010123
Electrode: Mushroom electrode
Mode: 4kV, 700Hz Medication use: None

Case Studies

Acute Wound

Before

After

Case: Longhair - 1.5-2 years old
Medical History: Acute Wound
Treatment Method:
Duration: 3-minute sessions for 4 days
Device: MCAP-010123
Electrode: Mushroom electrode
Mode: 4kV, 700Hz Medication use: None

Case Studies

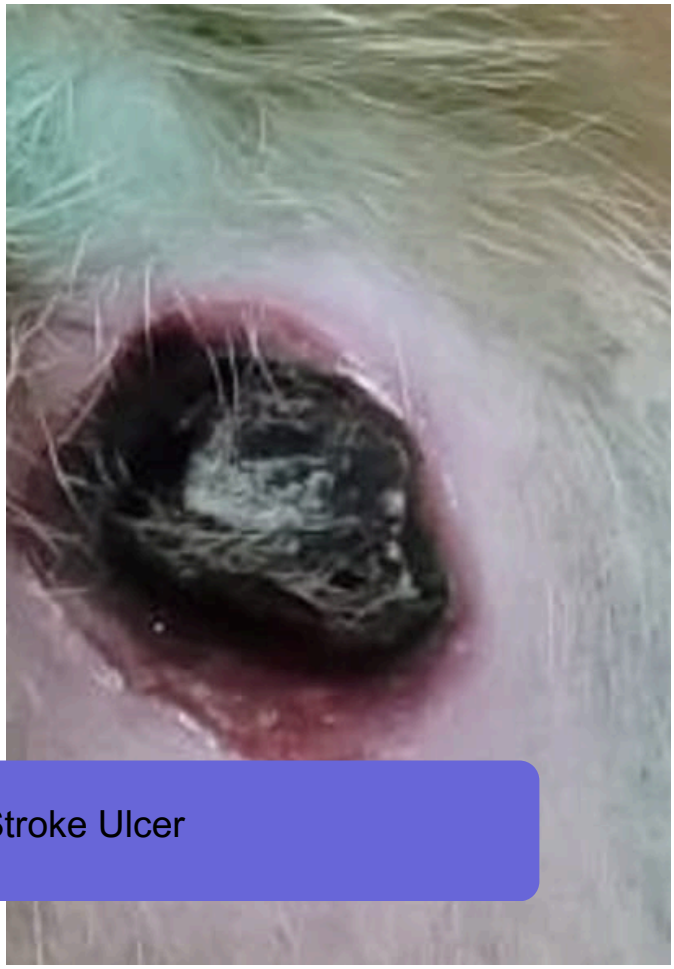
Acute Wound

Before

After

Case: Unknown - 3 years old
Medical History: Acute Wound
Treatment Method:
Duration: 3-minute sessions for 4 days
Device: MCAP-010123
Electrode: Mushroom electrode
Mode: 4kV, 700Hz Medication use: None

Case Studies



Stroke Ulcer

Before

After

Case: Unknown - 7 years old
Medical History: Pressure Ulcer
Treatment Method:
Duration: 3-minute sessions for 4 days
Device: MCAP-010123
Electrode: Mushroom electrode
Mode: 4kV, 700Hz Medication use: None

Case Studies

Tissue Infection

Before

After

Case: Unknown - 10 years old
Medical History: Pressure Ulcer and tissue infection
Treatment Method:
Duration: 3-minute sessions for 3 days, treatment is going
Device: MCAP-010123
Electrode: Mushroom electrode
Mode: 4kV, 700Hz Medication use: None

Case Studies

Tissue Infection

Before

After

Case: Unknown - 2 years old
Medical History: Infection
Treatment Method:
Duration: 3-minute sessions for 14 days
Device: MCAP-010123
Electrode: DBD electrode
Mode: 4kV, 700Hz
Medication use: Phsical remove

Case Studies

Breast Cancer

↑ Application

↑ Application

Case: 3 years old
Medical History: Cancer
Treatment Method:
Duration: 3-minute sessions for 1 day
Device: MCAP-010123
Electrode: Mushroom electrode
Mode: 4kV, 700Hz
Medication use: None

Case Studies

Diabetic wound

Before

After

Case: Unknown - 8 years old
Medical History: Diabetic wound
Treatment Method:
Duration: 3-minute sessions for 21 days
Device: MCAP-010123
Electrode: Mushroom electrode
Mode: 4kV, 700Hz Medication use: None

Case Studies

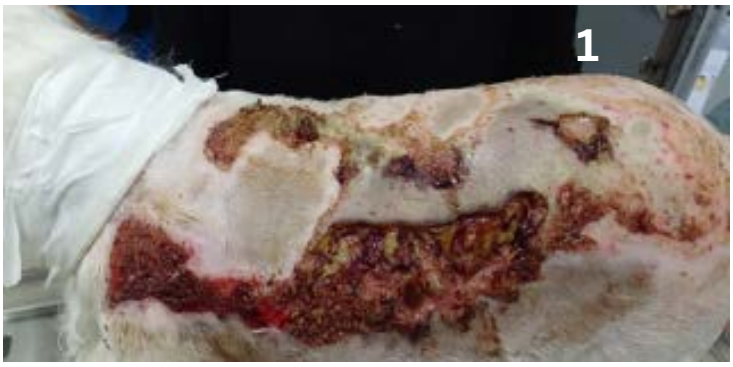
Mortal Wound

Before

After

Case: Unknown - 3 years old
Medical History: Mortal Injury
Treatment Method:
Duration: 3-minute sessions for 10 days
Device: MCAP-010123
Electrode: Mushroom electrode
Mode: 4kV, 700Hz
Medication use: Yes

Case Studies



Chronic-necrotic tissue

Case:+5 years old
Medical History: infection from ectoparasite
Treatment Method:
Duration: 3-minute session, still going
Device: MCAP-010123
Electrode: Mushroom electrode
Mode: 4kV, 700Hz Medication use: None

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Advanced Care, Less Discomfort

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