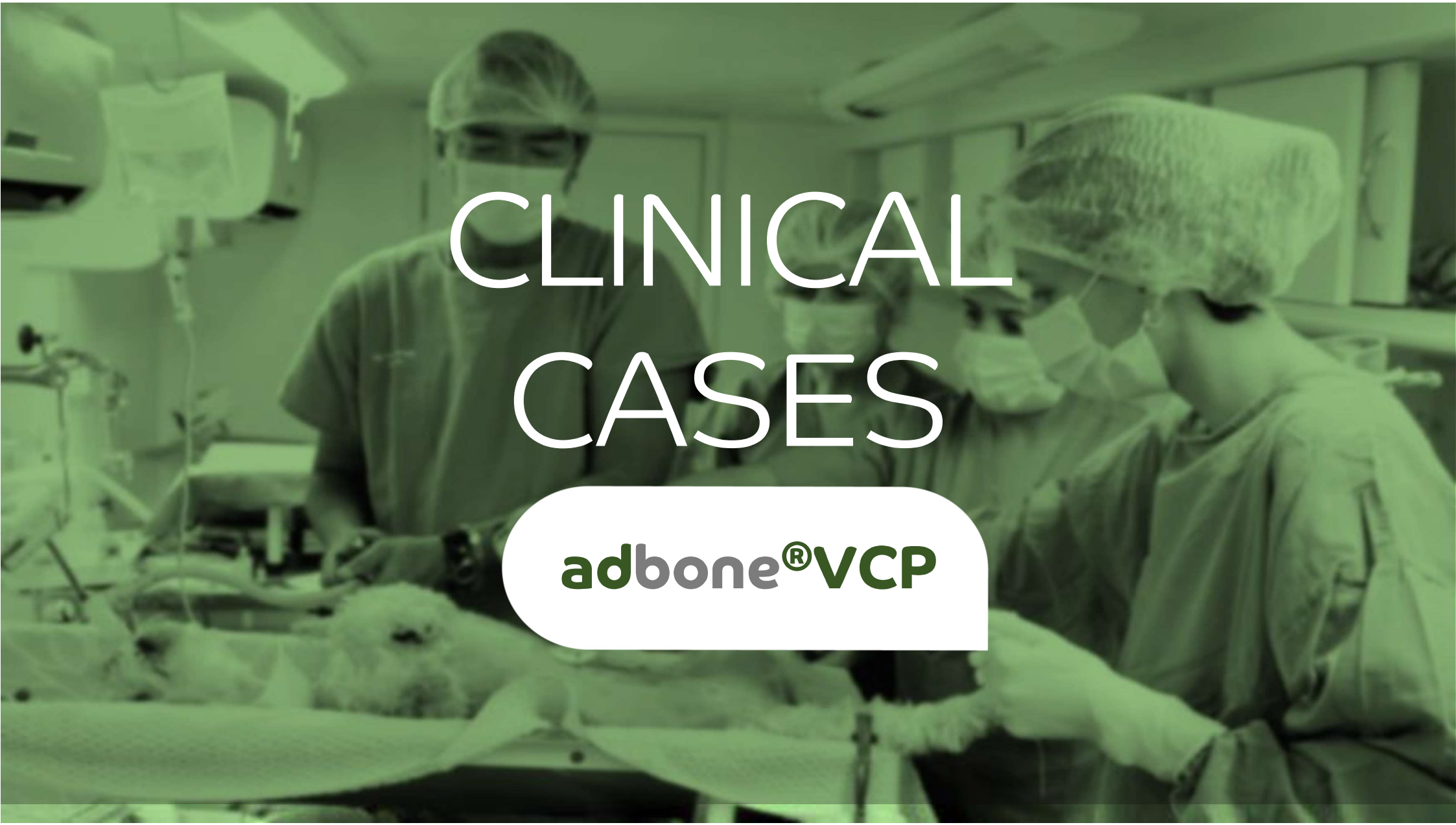
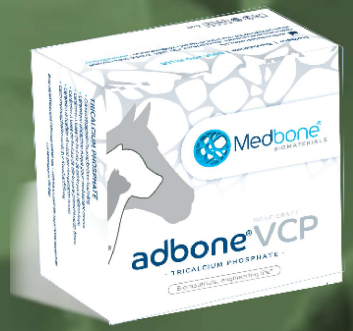

Medbone®
BIOMATERIALS
Medbone® | Biomaterials, engineering life.™


CLINICAL
CASES
adbone®VCP

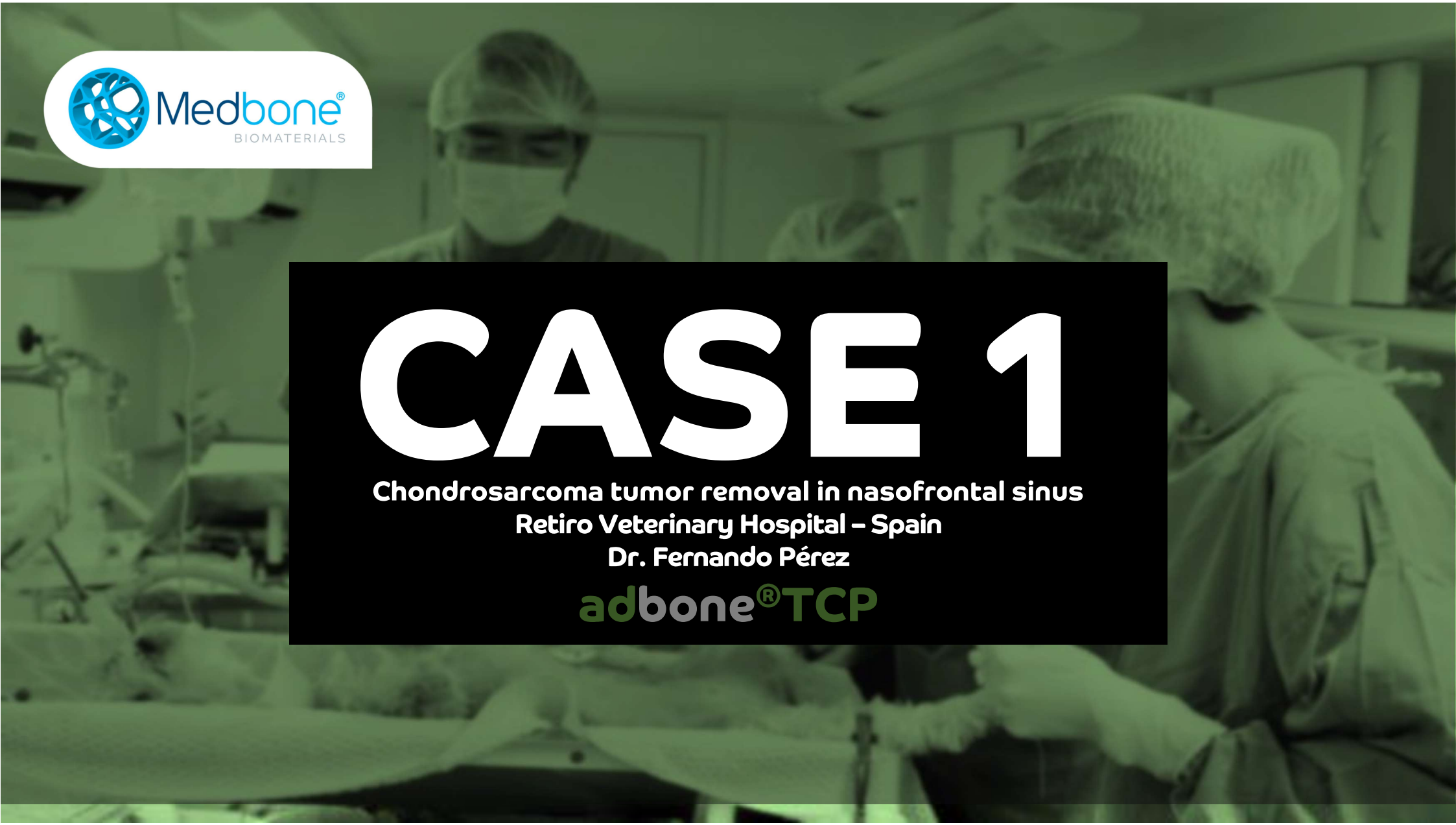


adbone®VCP - POROUS SYNTHETIC CERAMIC BONE GRAFT BIOMATERIAL

adbone®VCP is fully synthetic bone graft biomaterial, composed of pure beta-tricalcium phosphate (β-TCP). **adbone®VCP** features a multidirectional interconnected porosity that guides the three-dimensional bone regeneration.
As bone healing occurs, **adbone®VCP** is resorbed and replaced by new bone.

adpaste®VET - SYNTHETIC CERAMIC NANO-HYDROXYAPATITE PASTE

adpaste®VET is a synthetic (Alloplast) ceramic, composed by a water base nano-hydroxyapatite paste. It is resorbed and replaced by natural bone as bone healing process occurs and the paste can be molded to follow the natural contours of bone.
adpaste®VET can, in many cases, spare the patient the trauma of autograft harvesting and provides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CASE 1
Chondrosarcoma tumor removal in nasofrontal sinus
Retiro Veterinary Hospital – Spain
Dr. Fernando Pérez
adbone®TCP

Chondrosarcoma tumor removal in nasofrontal sinus

Patient: 8-year-old female canine.

Surgery: removal surgery through approaches to the frontonasal sinus by trephination, curettage and total removal of the tumor.

For sinus closure, PRGF + Biomaterial (100% Beta-tricalcium Phosphate) (B-TCP) is applied to induce rapid bone tissue regeneration and avoid possible iatrogenic emphysema.

Pre-operative orthopantomography

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Chondrosarcoma tumor removal in nasofrontal sinus

Pre-operative orthopantomography

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Chondrosarcoma tumor removal in nasofrontal sinus

PRGF + abone ® VCP

Process

Place the biomaterial and the PRGF endoret., in the glass container.

Mix the biomateiral with the PRGF and introduce into the plasmaterm.

Clot formation with biomaterial.

Placement of the clot on the fracture giving the desired shape to the clot.

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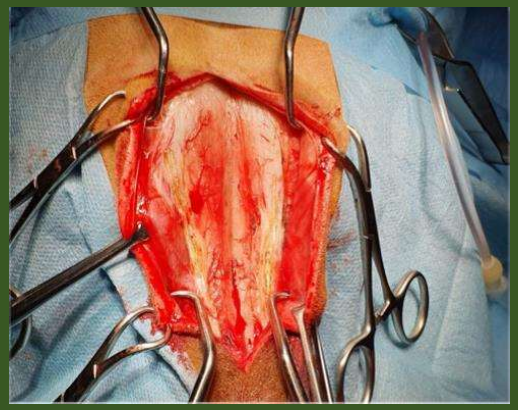
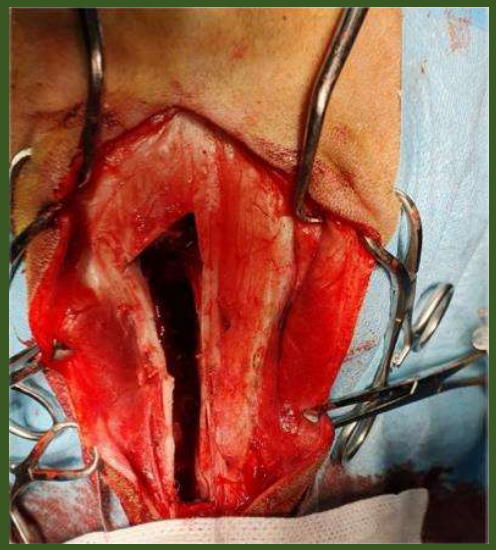
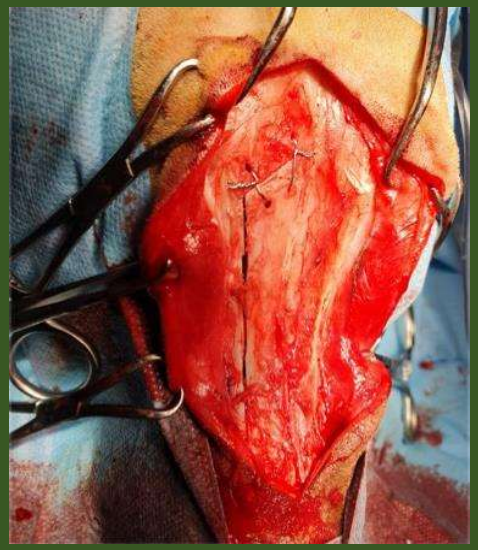
Chondrosarcoma tumor removal in nasofrontal sinus







Post-operative orthopantomograph

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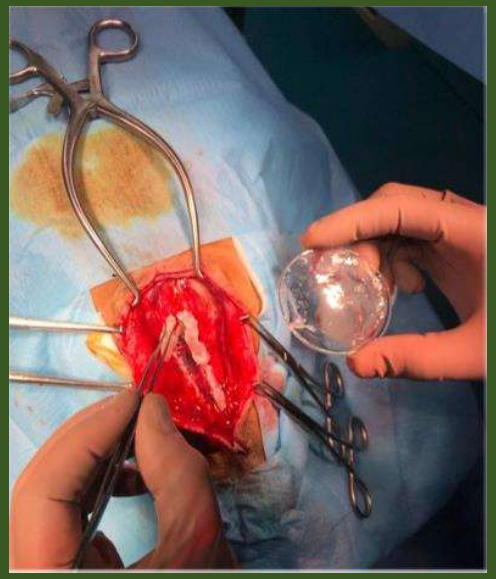
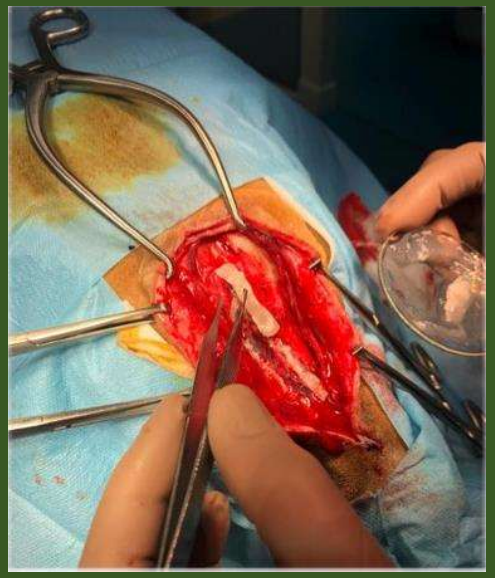
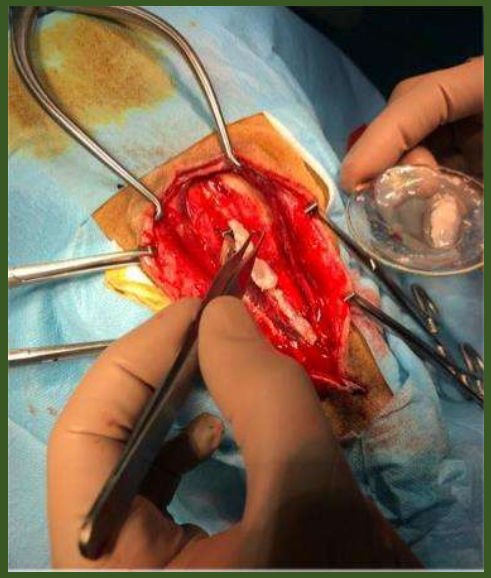
Chondrosarcoma tumor removal in nasofrontal sinus

Post-operative orthopantomography

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Chondrosarcoma tumor removal in nasofrontal sinus

Post-operative orthopantomography

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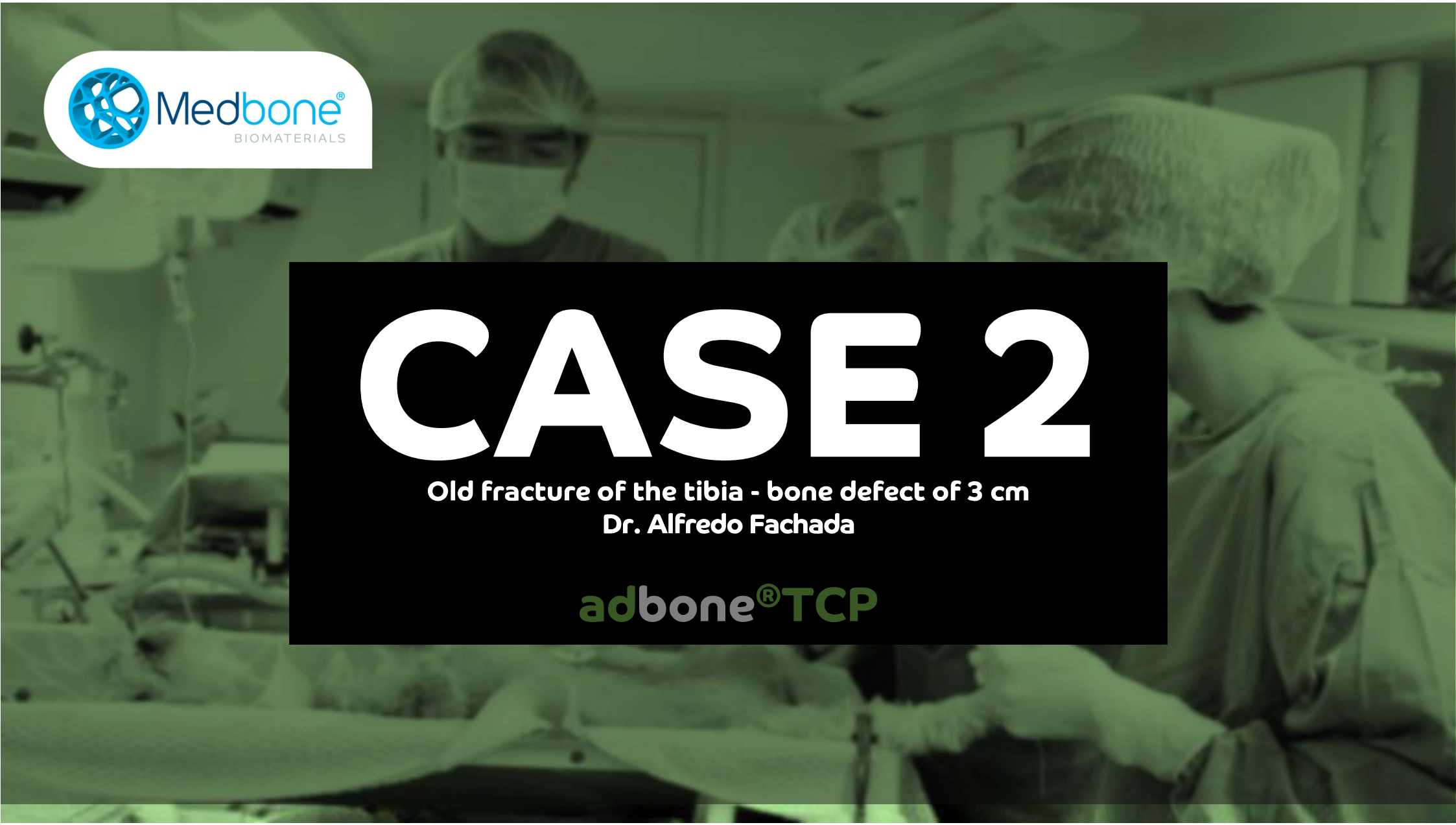
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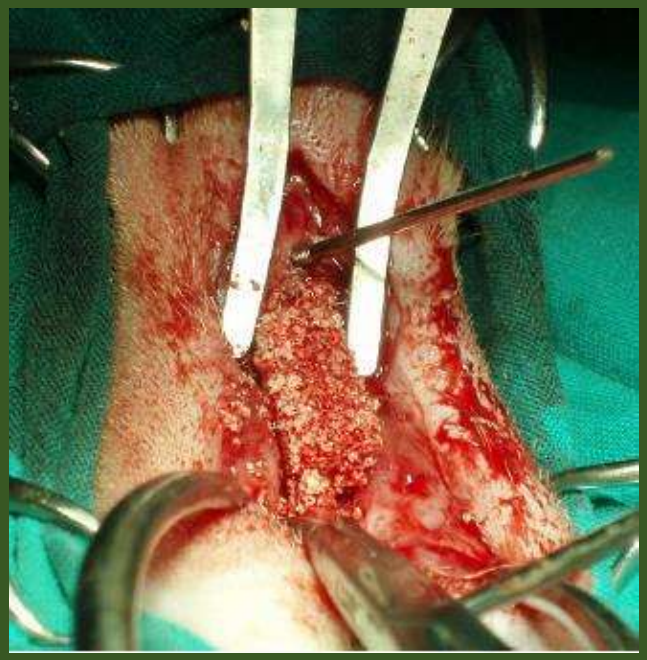
CASE 2
Old fracture of the tibia - bone defect of 3 cm
Dr. Alfredo Fachada
adbone®TCP

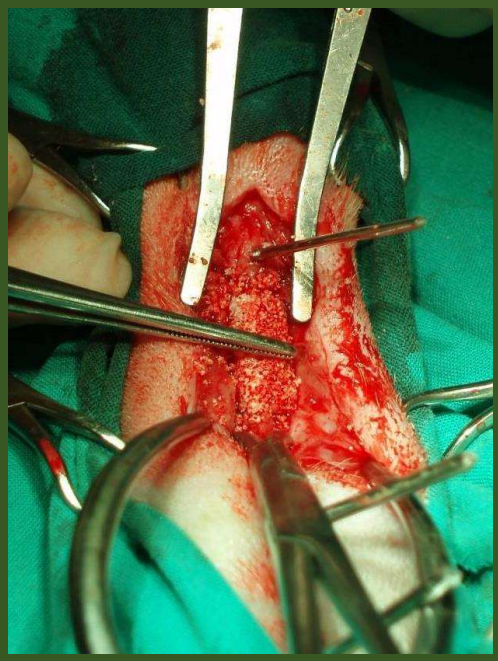
Old fracture of the tibia - bone defect of 3 cm

Patient: Dog with 5 years old and 4 kg.
Geometry: 1 block of 8x8x30 mm

Patient preparation

The member is clamped just below the joint. The patient is placed supine or lateral, depending on the surgeon's preference.





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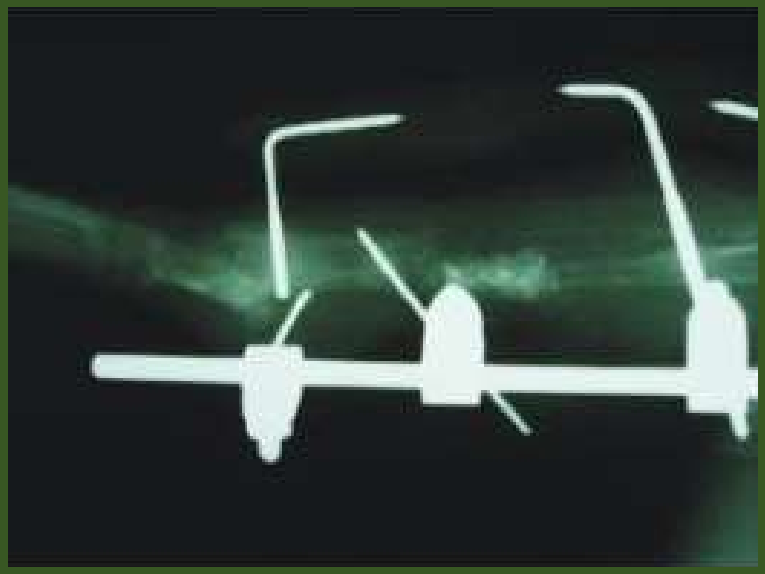
Old fracture of the tibia - bone defect of 3 cm

Surgical Procedure

In this case it was not necessary to impregnate the implant in the patient's blood or serum because the fracture zone was already sufficiently irrigated. The synthetic bone was placed in contact with the porous autologous bone. The implant was placed with a slight compression, and thereafter the wound was closed and impervious to air.



Pre-operative

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Old fracture of the tibia - bone defect of 3 cm

30 days: Evident union between the tibia and synthetic bone with increased diameter of the tibia in the connection area with the synthetic bone

60 days: Uniformity of the diameter of the tibia. Osseointegration is already visible.

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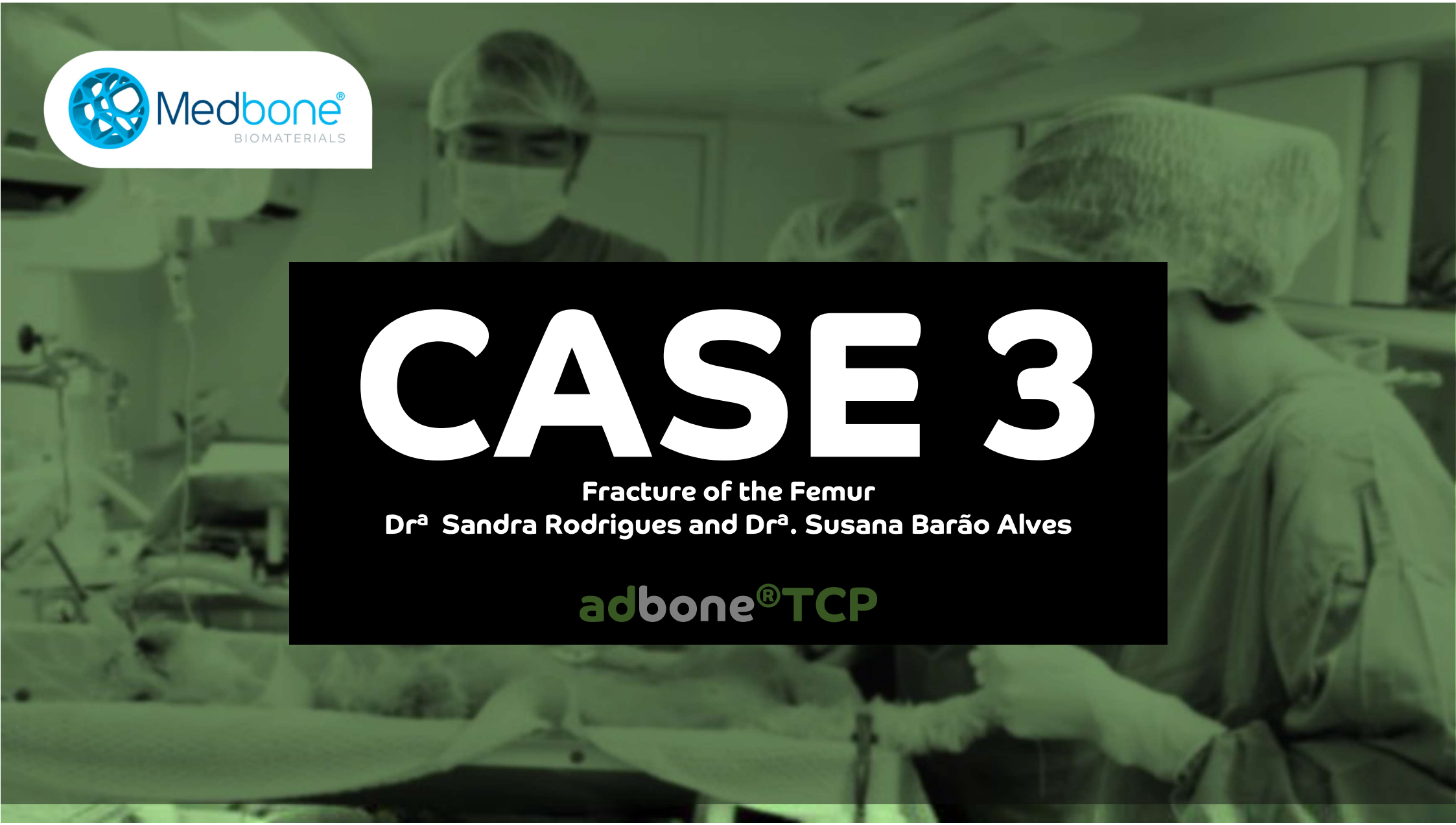

CASE 3

Fracture of the Femur

Drª Sandra Rodrigues and Drª. Susana Barão Alves

adbone®TCP

Fracture of the Femur

Patient: Dog with 9 years, 16 Kg
Product: adbone®VCP

Reference: 3-4 mm, granules 2.5g

The femur fracture was stabilized using an internal pin. adboneVCP granules were then placed by the facture, filling up
the bone voids.

We can observe the process of osteointegration and bio absorption
over time. adboneVCP is highly radiopaque allowing an easy monitoring of the remodeling process

Kart

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Drª. Sandra Rodrigues and Drª. Susana Barão Alves

Fracture of the Femur

Surgery Day

20 Days

30 Days

42 Days

The pin was removed after 42 days, allowing regain of total mobility.

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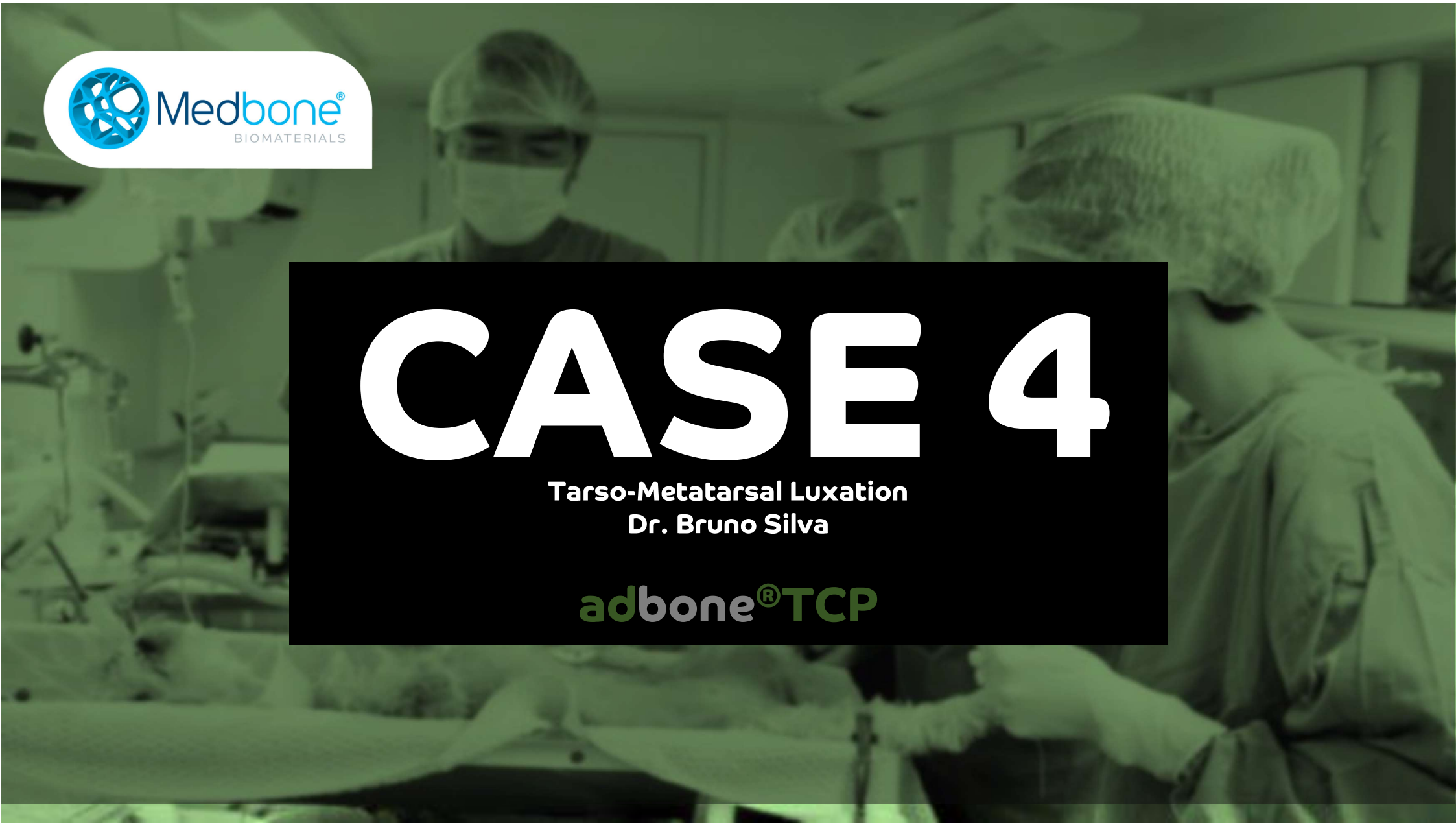
Drª. Sandra Rodrigues and Drª. Susana Barão Alves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CASE 4
Tarso-Metatarsal Luxation
Dr. Bruno Silva
adbone®TCP

Tarso-Metatarsal Luxation

Patient: Spanish Greyhound, 5 years old
Product: adbone®VCP

Reference: 1-2 mm, granules

The angular deformity was stabilized using an internal fixation plate.
adboneVCP granules were then placed by the facture, filling up the bone void.

Over time, we can observe that the process of osteointegration and bio absorption was almost perfect.
After the last follow-up, the fixation plate was removed.
adboneVCP is highly radiopaque allowing an easy monitoring of the remodeling process.

Surgery Day – Grafting

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Dr. Bruno Silva

Tarso-Metatarsal Luxation

Follow-Up - 25 Days

Follow-Up - 40 Days

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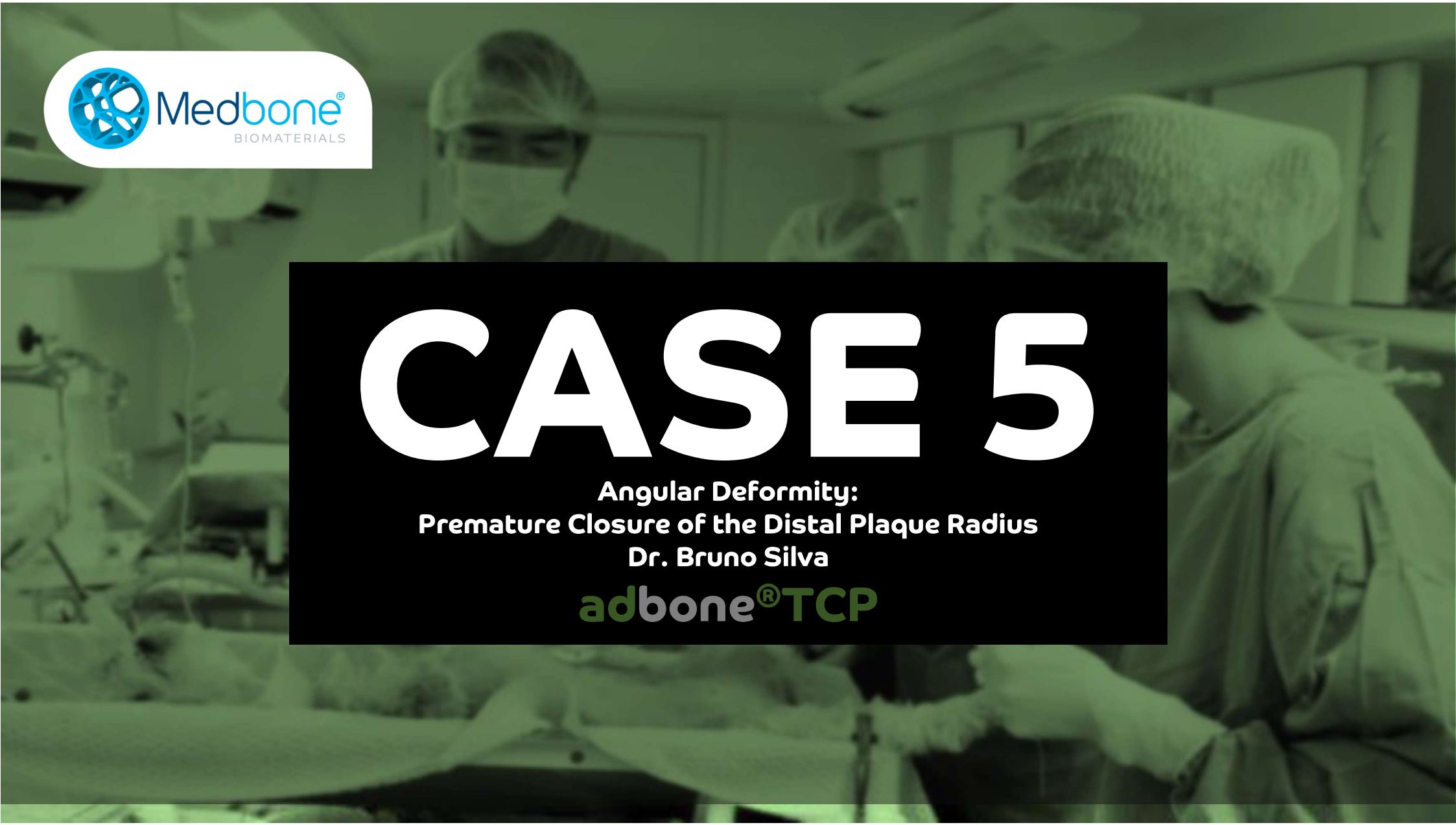

CASE 5

Angular Deformity:
Premature Closure of the Distal Plaque Radius
Dr. Bruno Silva

adbone®TCP

Angular Deformity:
Premature Closure of the Distal Plaque Radius

Patient: Lindley, Dog with 25 Kg
Product: adbone®VCP

Reference: 1-2 mm, granules

The angular deformity was stabilized using an internal fixation plate.
adboneVCP granules were then placed by the facture, filling up the bone void.

We can observe the process of osteointegration and bio absorption over time.
adboneVCP is highly radiopaque allowing an easy monitoring of the remodeling process.

Surgery Day – Before Grafting

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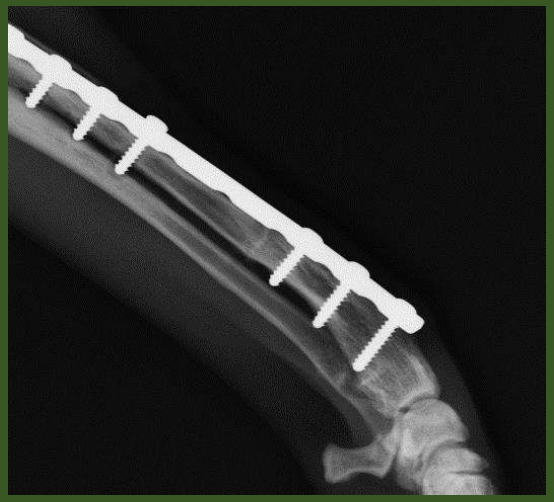
Angular Deformity:
Premature Closure of the Distal Plaque Radius

Surgery Day – Grafting
(Upper View)

Follow-up – 20 Days
(Side View)



Follow-up – 42 Days
(Side View)

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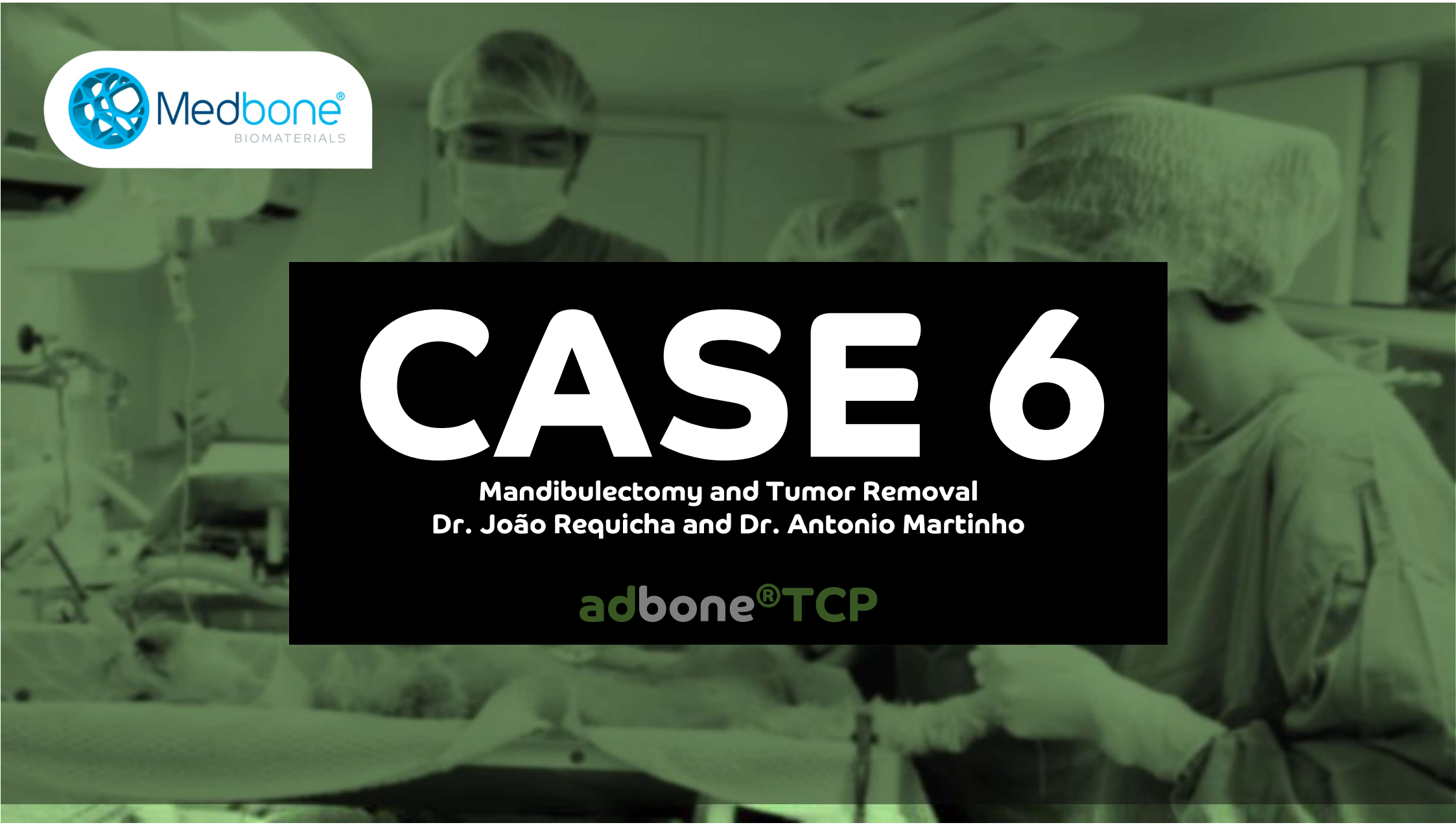
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CASE 6
Mandibulectomy and Tumor Removal
Dr. João Requicha and Dr. Antonio Martinho
adbone®TCP

Mandibulectomy and Tumor Removal

Patient: Jimba
Product: adbone®VCP

Reference: (VCP050110P; 0.5 – 1.0 mm; 1g x 5)

The remaining mandibula was stabilized using an internal fixation plate and adboneVCP granules.

Over time, the osteointegration and bio absorption processes of the surrounding granules are visible.

adboneVCP is highly radiopaque allowing an easy monitoring of the remodeling process.

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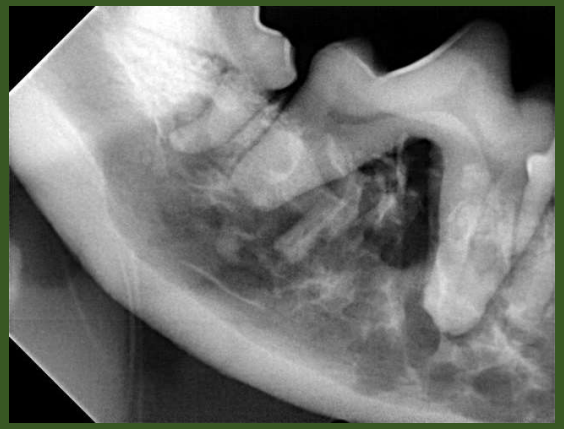
Dr. João Requicha and Dr. Antonio Martinho

Mandibulectomy and Tumor Removal



X-Ray

Planning

Planning

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Mandibulectomy and Tumor Removal




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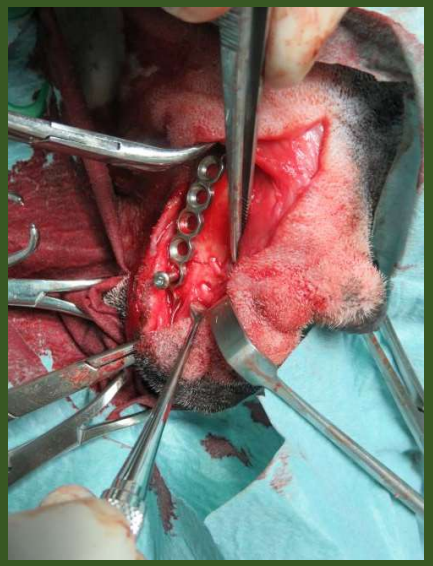
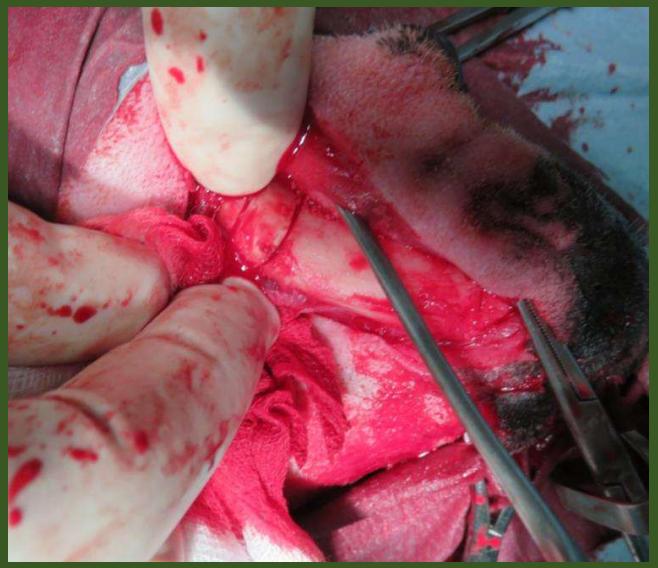
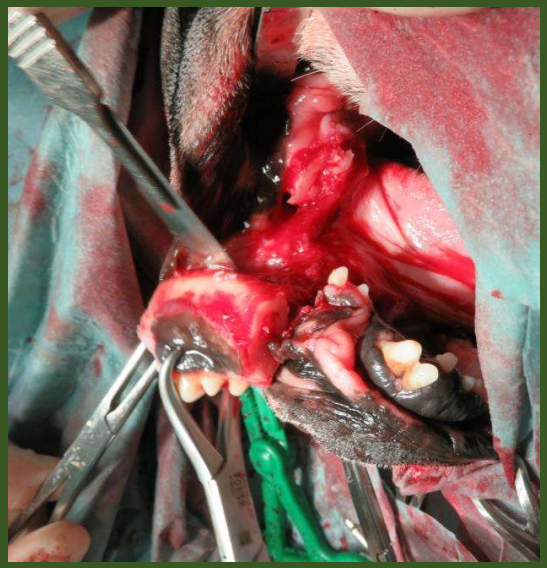
Mandibulectomy and Tumor Removal







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Mandibulectomy and Tumor Removal




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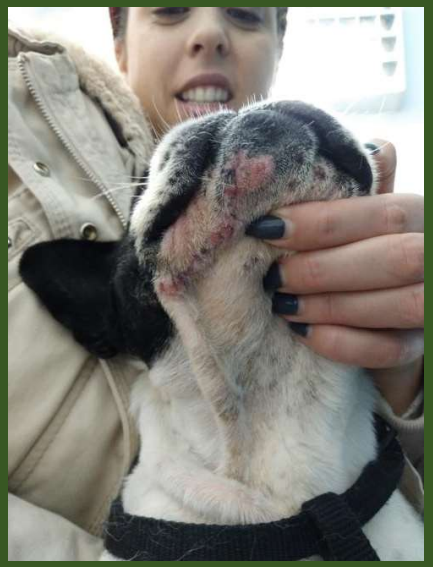
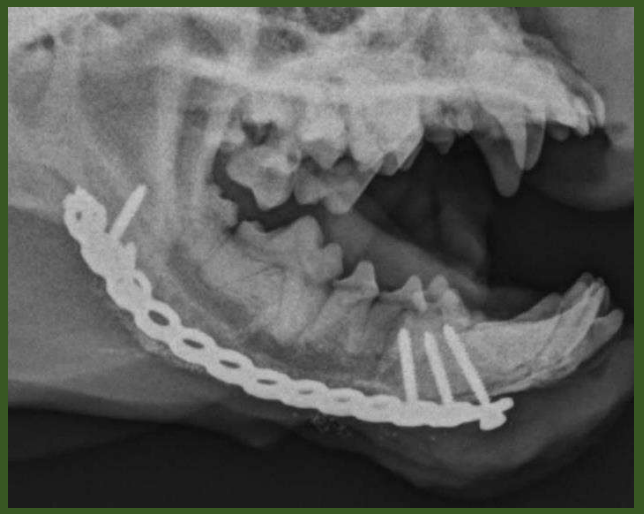
Mandibulectomy and Tumor Removal



1 week after surgery



42 days after surgery

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