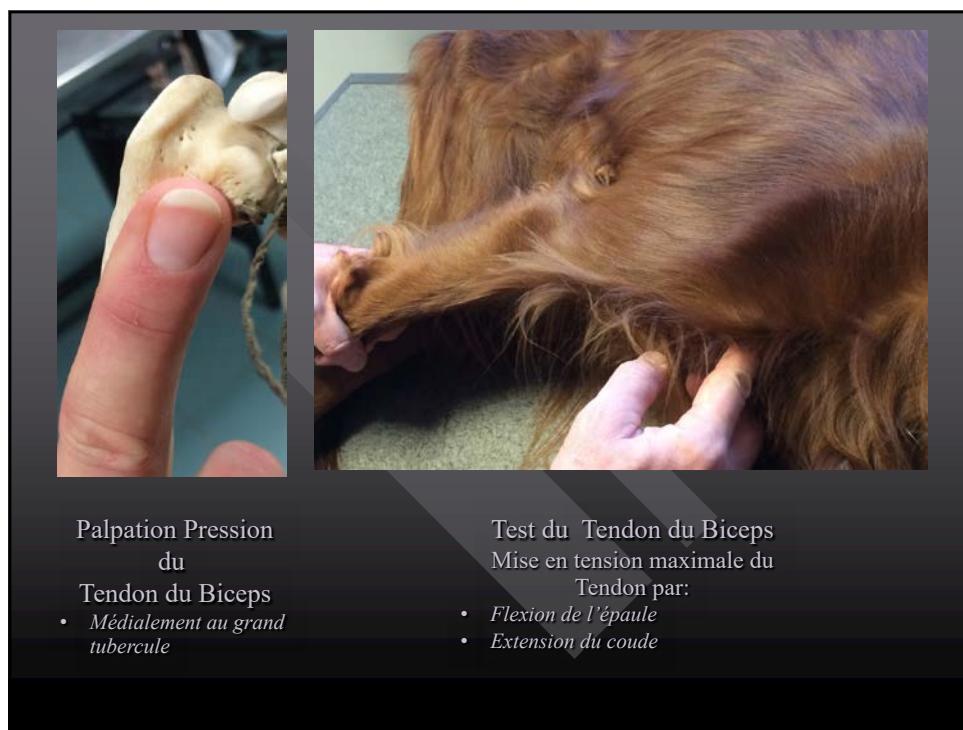
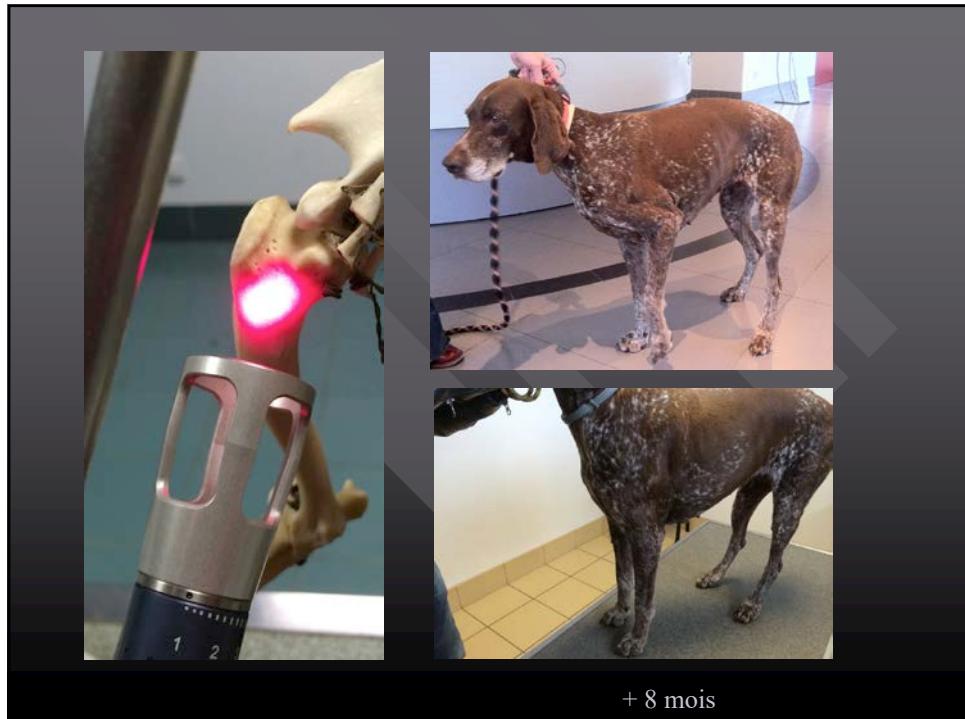




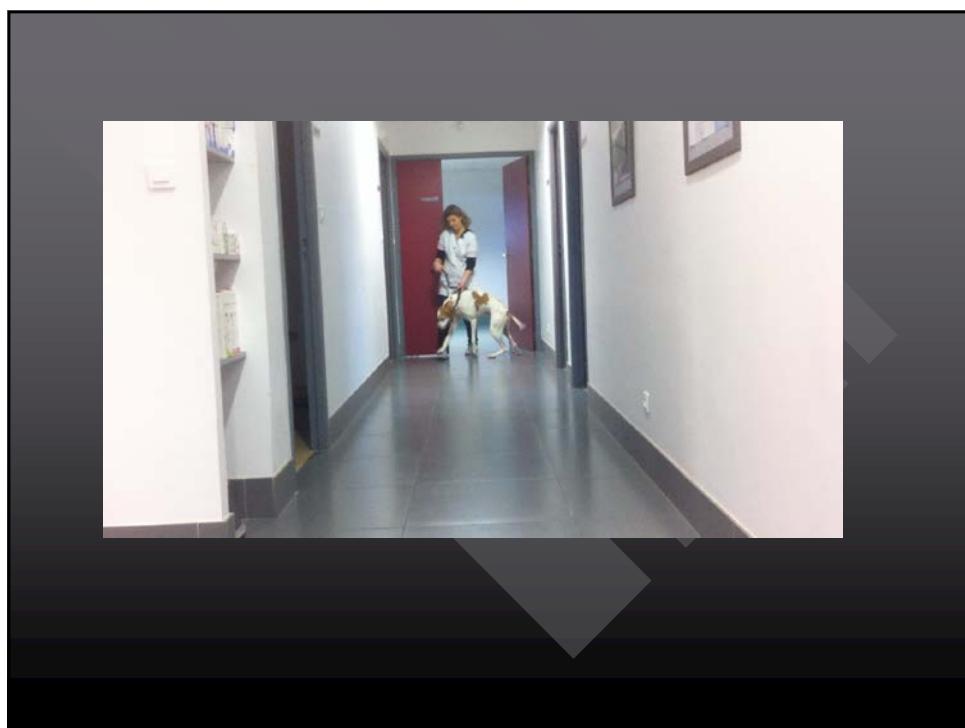
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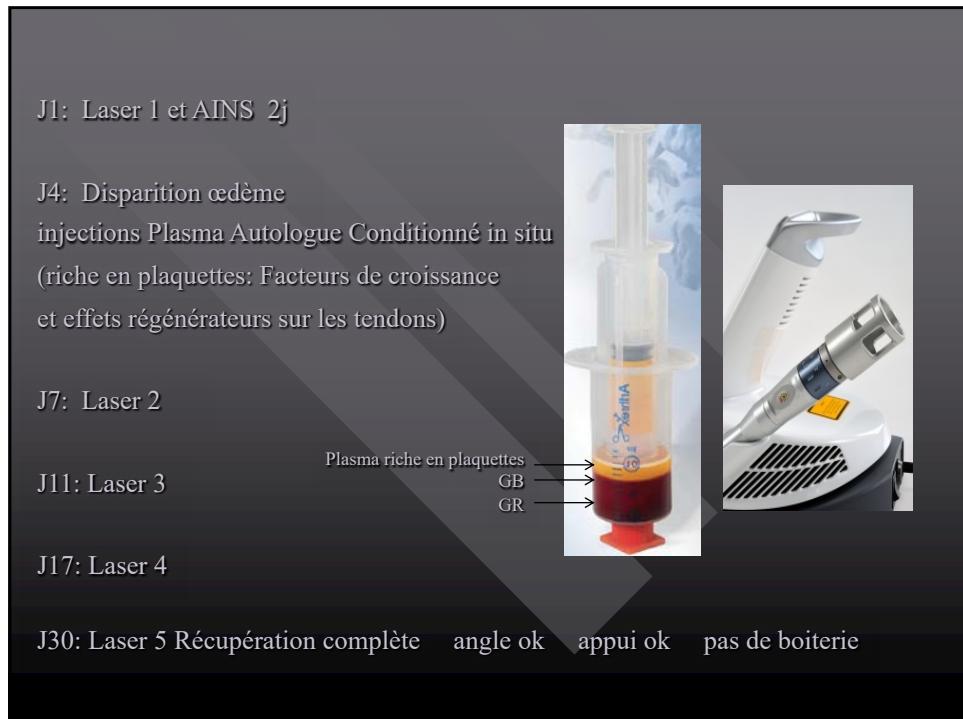


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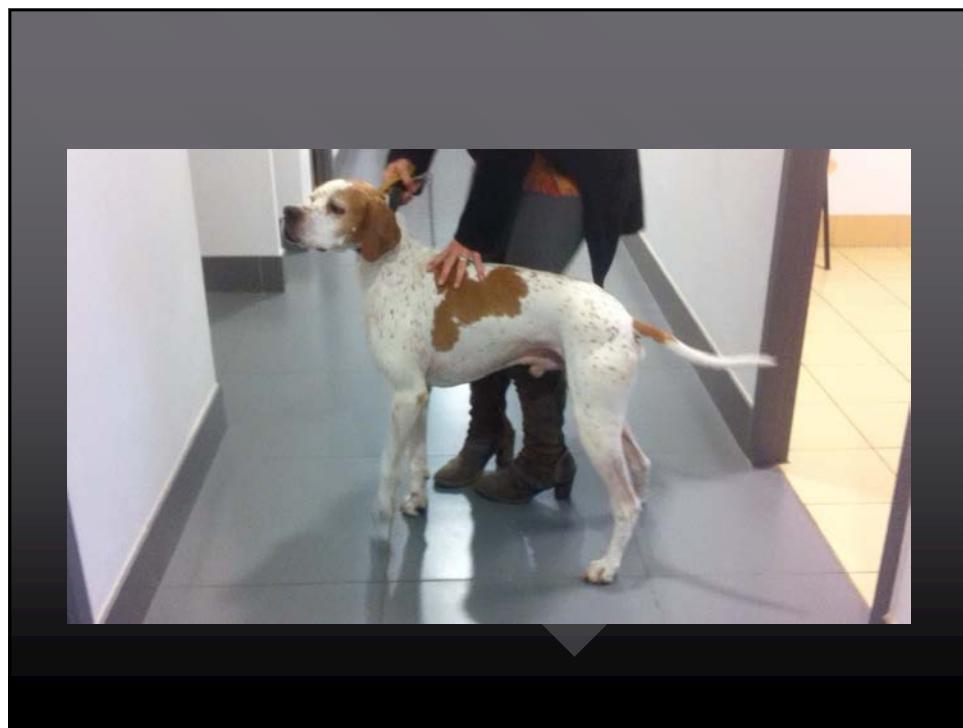


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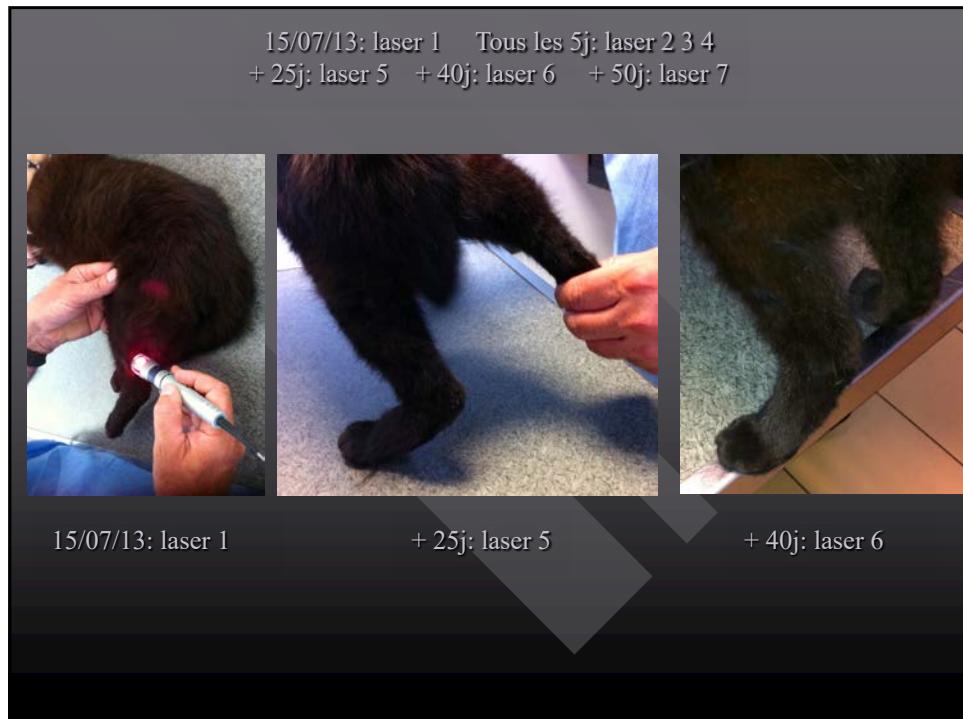


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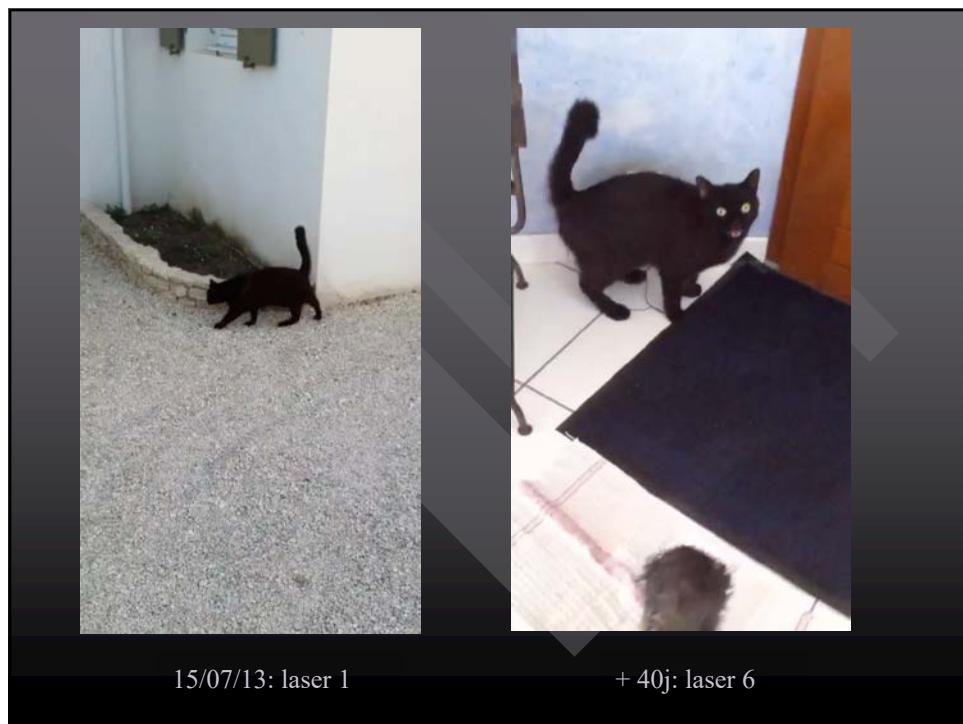


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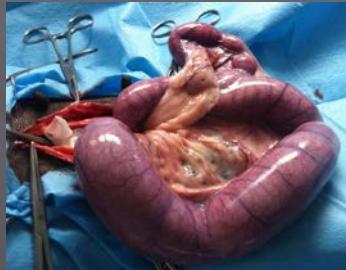


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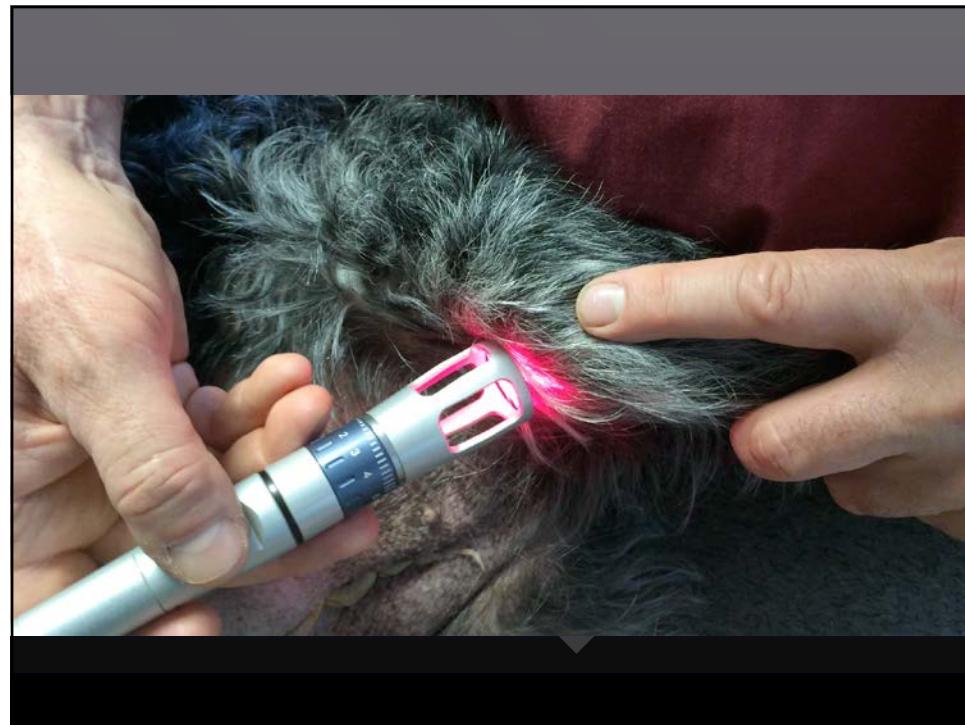


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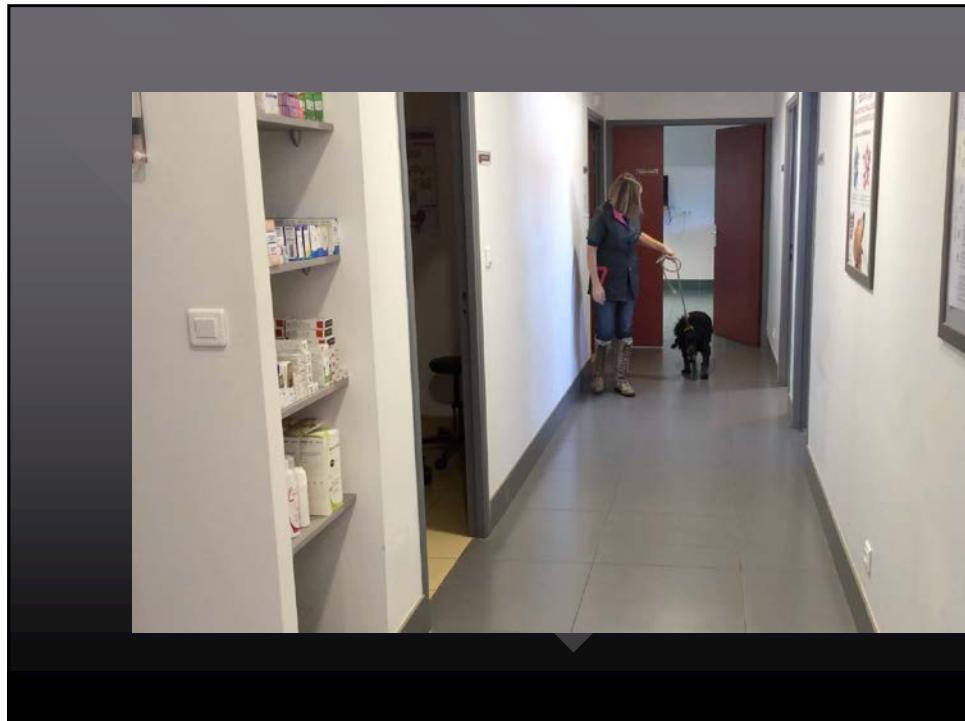
Tirane Epagneul Breton F 11ans 24,7 kg
Pyomètre et Rupture LCA G



9



10



11



Rebecca
Schnauzer
F 13ans 8,7 kg
Rupture LCA D

+ 15 j

12



13

Lasers in Surgery and Medicine

Low-Level Laser Therapy (808 nm) Reduces Inflammatory Response and Oxidative Stress in Rat Tibialis Anterior Muscle After Cryolesion

Livia Andrade, MSc, PhD,¹ Ana I.S. Moretti, MSc, PhD,^{2,*} Thalita R. Alencar, MSc,³ Vivian Cury, MSc,¹ Luisa da P. S. Góes, MSc, PhD,⁴ Michael R. Hamblin, PhD,⁵ and Nivaldo A. P. Pacheco,¹ SP, Brazil

¹Emergency Medicine Division, Faculdade de Medicina da Universidade de São Paulo, São Paulo, SP, Brazil

²Pain Graduate Health Sciences Program, Instituto de Assistência Médica ao Servidor Público Estadual—IAMSPE, São Paulo, SP, Brazil

³Laboratory of Vascular Biology, Department of Cardiopneumology, Heart Institute, Faculdade de Medicina da Universidade de São Paulo, São Paulo, SP, Brazil

⁴Wellness Center, Photomedicine, Massachusetts General Hospital, Boston, Massachusetts

⁵Department of Dermatology, Harvard Medical School, Boston, Massachusetts

^{*}Harvard-MIT Division of Health Sciences and Technology, Cambridge, Massachusetts

Background and Objective: Muscle regeneration is a complex phenomena, involving coordinated activation of several cellular responses. During this process, oxidative stress and inflammation are considered as a severity that may depend on the intensity and duration of the inflammatory response. Among the therapeutic approaches to attenuate inflammation and increase tissue regeneration, low-level laser therapy (LLLT) has been an effective clinical procedure. The aim of this study was to evaluate the effects of LLLT on oxidative/inflammatory stress and inflammatory marker production during a cryolesion of rat tibialis anterior (TA) muscle in rats.

Material and Methods: Sixty Wistar rats were randomly divided into three groups ($n = 20$): control (BC), injured TA muscle without LLLT (IC), injured TA muscle submitted to LLLT (IRI). The TA muscle was cryolesioned for 4 consecutive days, starting immediately after the lesion using a 40G \times 6 laser (continuous wave, 808 nm tip area of 0.0385 cm 2 , power 30 mW, application time 47 ms, distance 10 mm, 10 J/cm 2 , 10 mW/cm 2 total energy 1.4 J). The animals were sacrificed on the fourth day after injury.

Results: LLLT reduced oxidative and nitrosative stress in injured muscle, decreased lipid peroxidation, nitroso-amine formation and NO production, probably due to reduction in iNOS protein expression. Moreover, LLLT increased the rate of regeneration, and decreased the inflammatory response as measured by gene expression of TNF- α and COX-2 and by TNF- α and IL-1 β concentrations. Conclusion: These results suggest that LLLT could be an effective therapeutic approach to modulate oxidative and nitrosative stress and to reduce inflammation in injured muscle. *Lasers Surg. Med.*

*Corresponding to: Ana Isabela Soare Moretti, MSc, PhD, Laboratory of Emergency Medicine, Division of Emergency Medicine, Hospital das Clínicas da Faculdade de Medicina da USP, São Paulo, Brazil. Av. Dr. Arnaldo, 453 sala 3109, 01246-003 São Paulo, SP, Brazil. E-mail: ana.moretti@yahoo.com.br

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Key words: low-level laser therapy; photobiomodulation; muscle cryolesion; inflammatory mediators; nitrosative stress; oxidative stress

INTRODUCTION

Skeletal muscle injuries are common consequences of sport and labor activities. Depending on the severity of injury, they can affect muscle function, leading to stiffness, pain, and functional impairment, increasing the likelihood of re-injury [1–3].

Muscle repair is a very complex and involves several biological and molecular cellular processes. Immediately following the disruption of the myofibers, neutrophils, and macrophages infiltrate to the lesion area, producing pro-inflammatory cytokines and proteases responsible for necrotic tissue removal and further propagation of the inflammatory response [4–6]. These processes

Conflict of Interest Disclosure: All authors have completed disclosure of financial conflicts of interest. No conflict exists for drugs or devices used in a study if they are not being evaluated as part of investigation. For a detailed description of the disclosure categories, or for more information about ASCM's conflict of interest policy, please refer to the Author Disclosure Declaration and the Disclosure of Potential Conflicts of Interest section in Information for Contributors.

NIH Contract grant sponsor: Emergency Medicine Foundation de Amparo à Pesquisa do Estado de São Paulo (FAPESP); NIH Contract grant number: FAPESP-08/55135-7; NIH Contract grant sponsor: Conselho Nacional de Desenvolvimento Científico e Tecnológico (CNPq); NIH Contract grant number: 151741/2009-7.

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A **B**

C **D**

Cryolesion

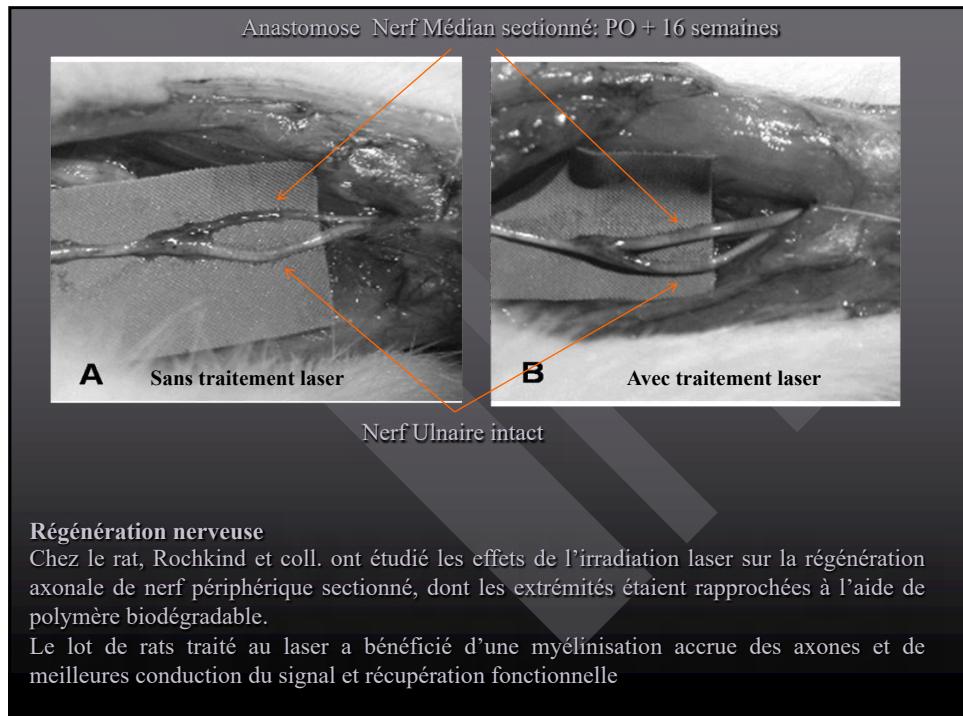
Fig. 1. Freezing right tibialis anterior muscle injury (cryolesion) model. **A**, Dissection and muscle exposition; **(B and C)** Cryolesion procedure; and **(D)** Suture after surgical procedure.

A **B**

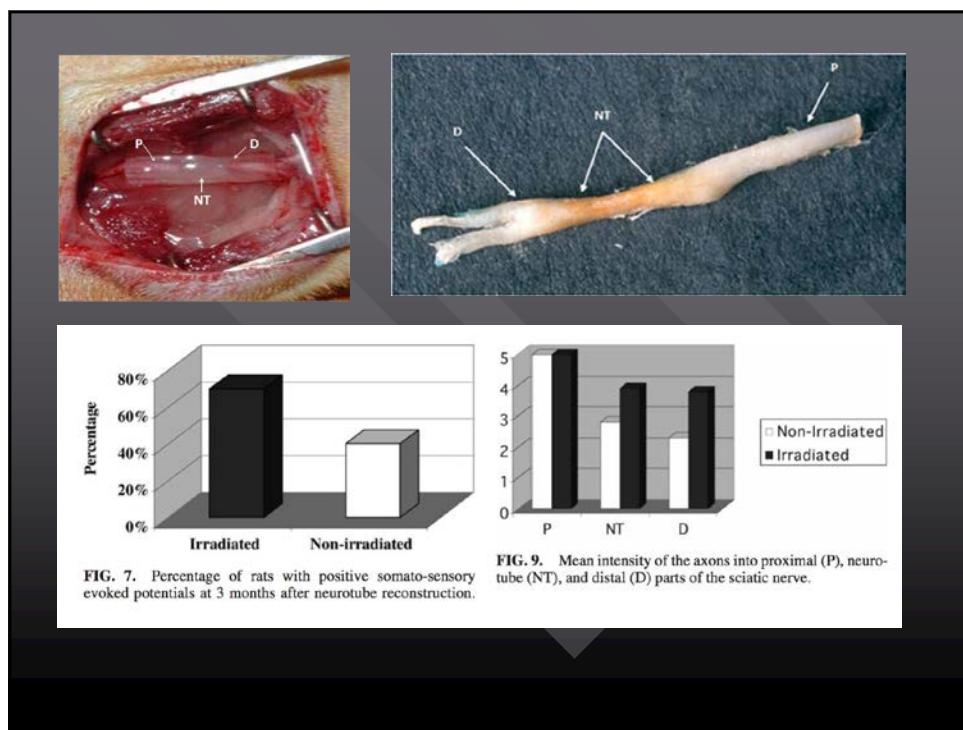
TNF α **IL-1 β**

Fig. 7. Cytokine levels. **A:** TNF- α and **(B)** IL-1 β . Normal TA muscle—control (BC); injured TA muscle without LLLT (IC); injured TA muscle submitted to infrared laser irradiation (IRI). LLLT has decreased the concentration of inflammatory cytokines ($P < 0.05$ vs. IC).

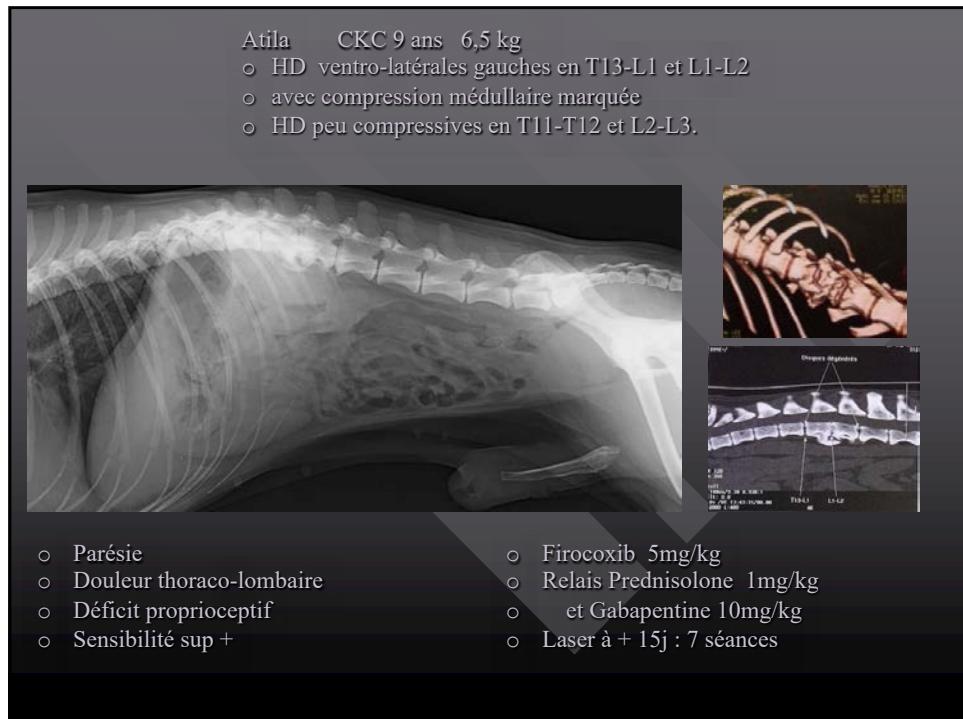
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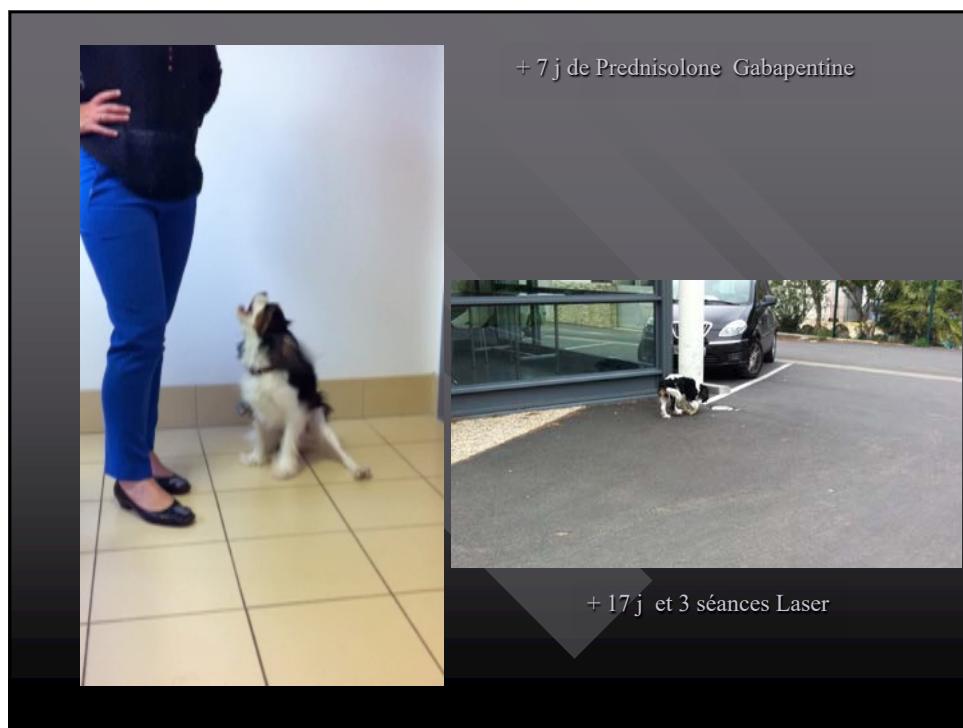
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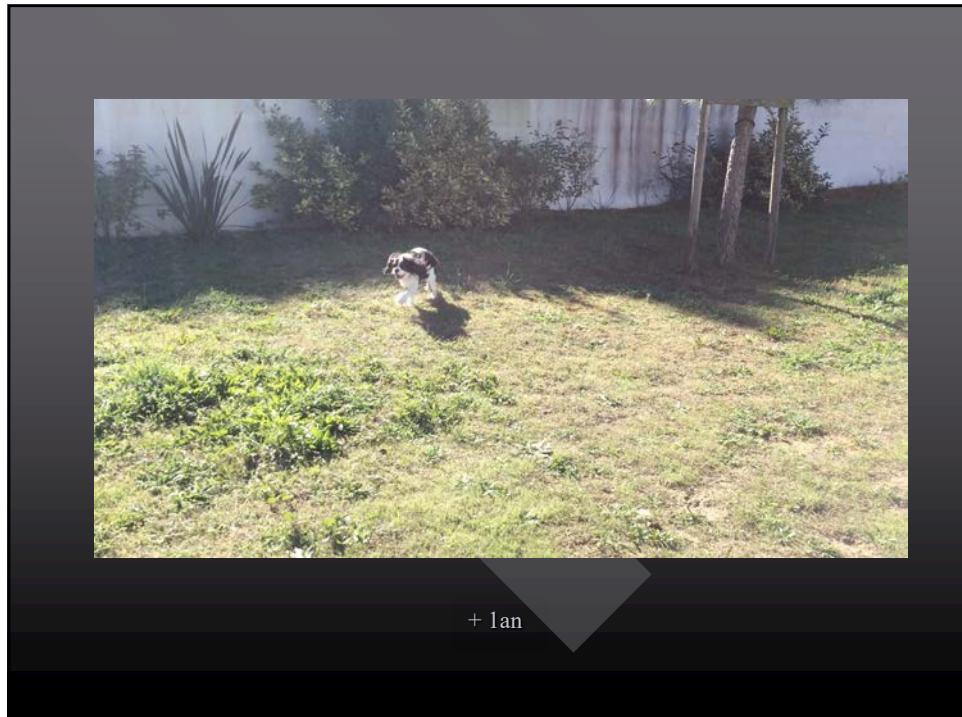
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17

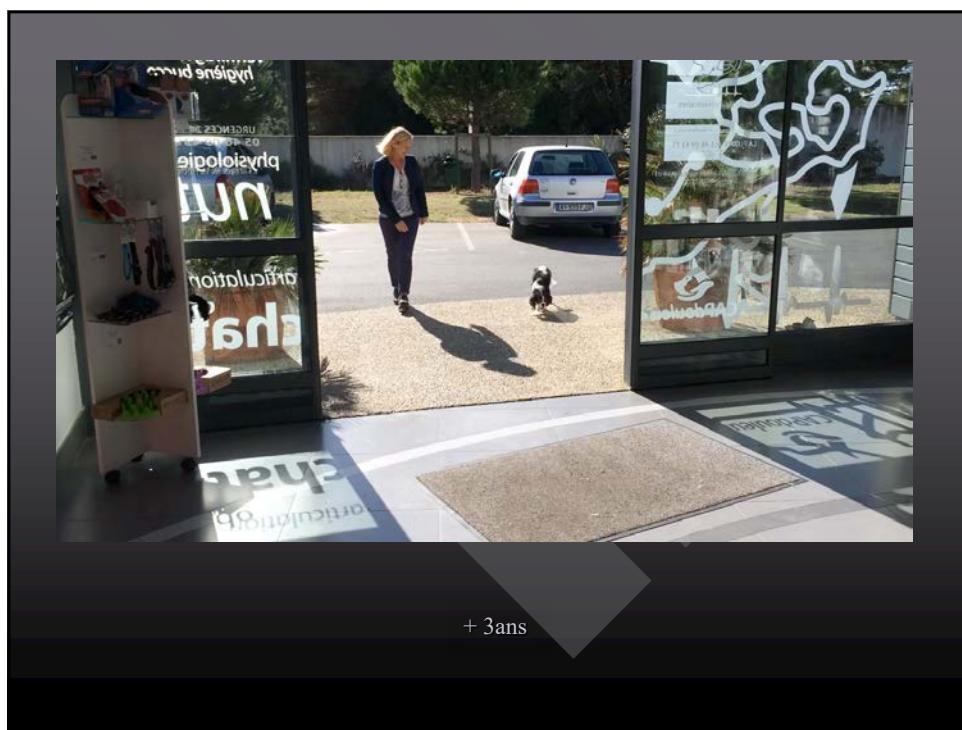


18



+ 1an

19



+ 3ans

20

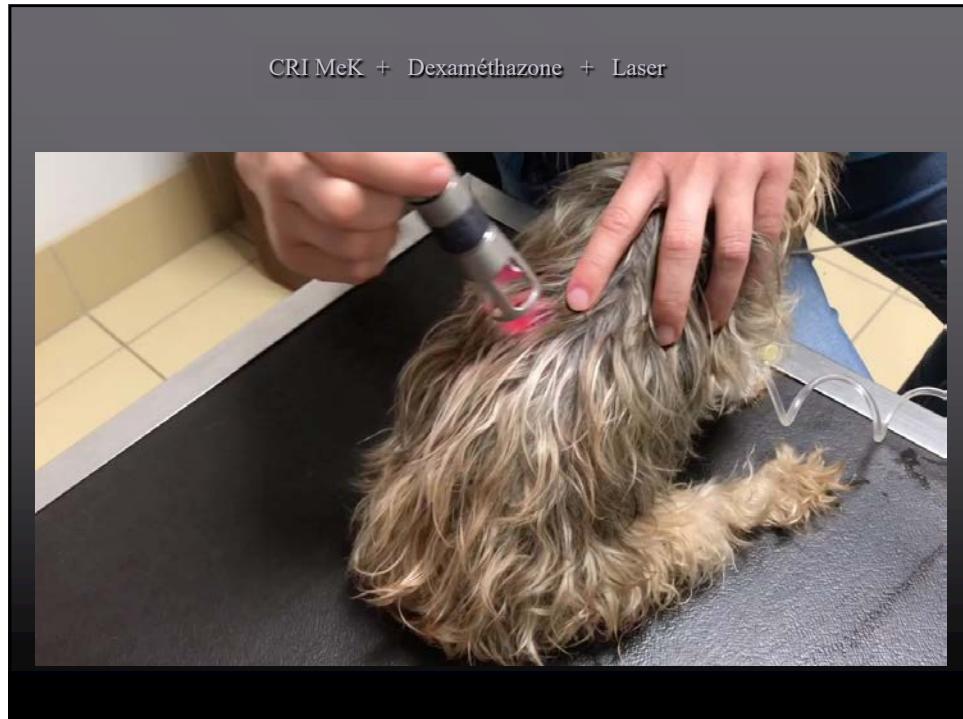
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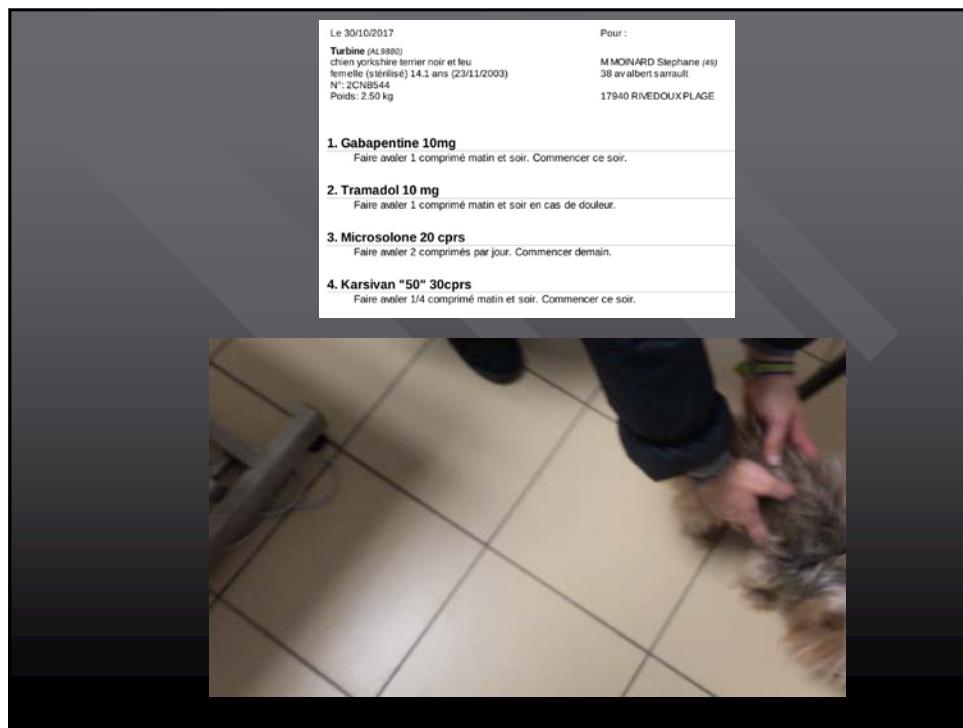
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22



23



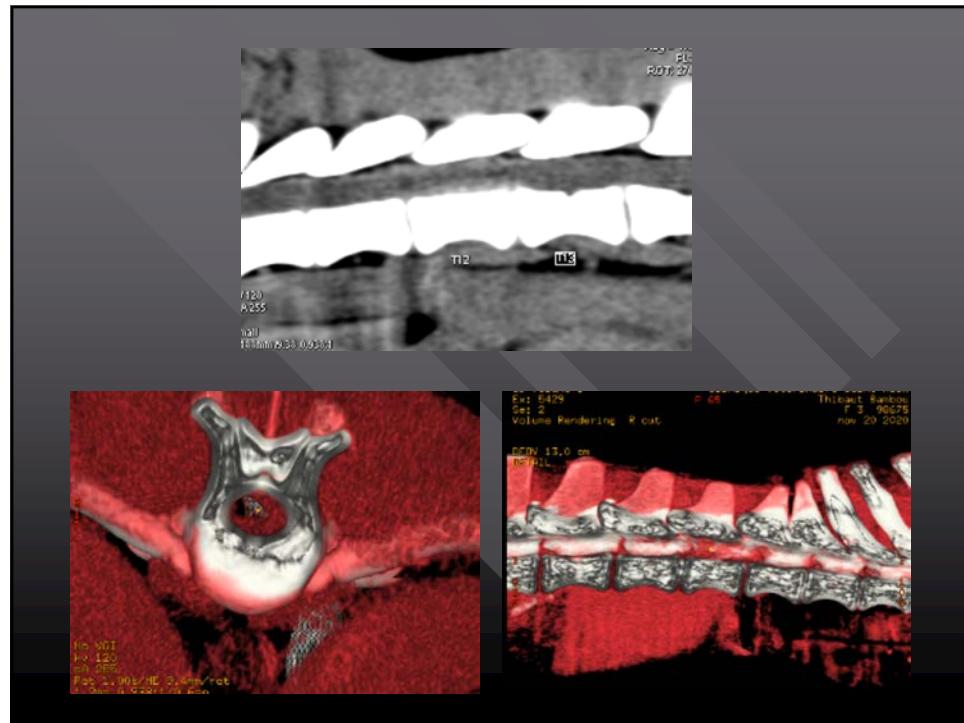
24

Bambou Croisé Pinscher F 4 ans 12 kg

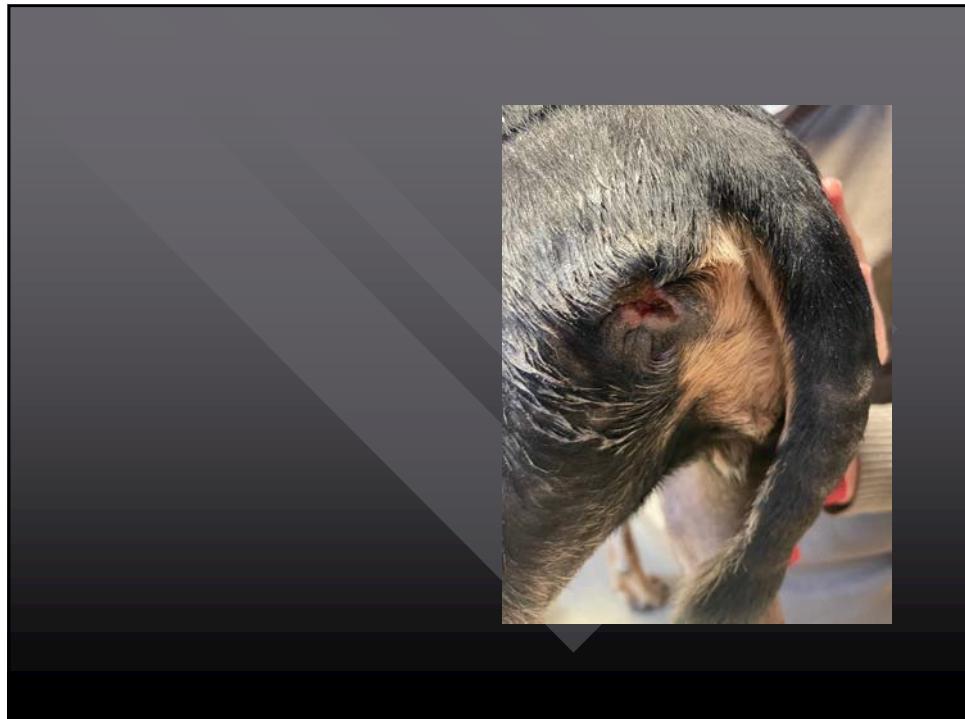
- Longue hernie discale en T12-T13, latérale gauche en fer à cheval avec compression médullaire importante
- 15 j hospitalisation - paraplégique 21 j - complications escarres - incontinence à vessie pleine



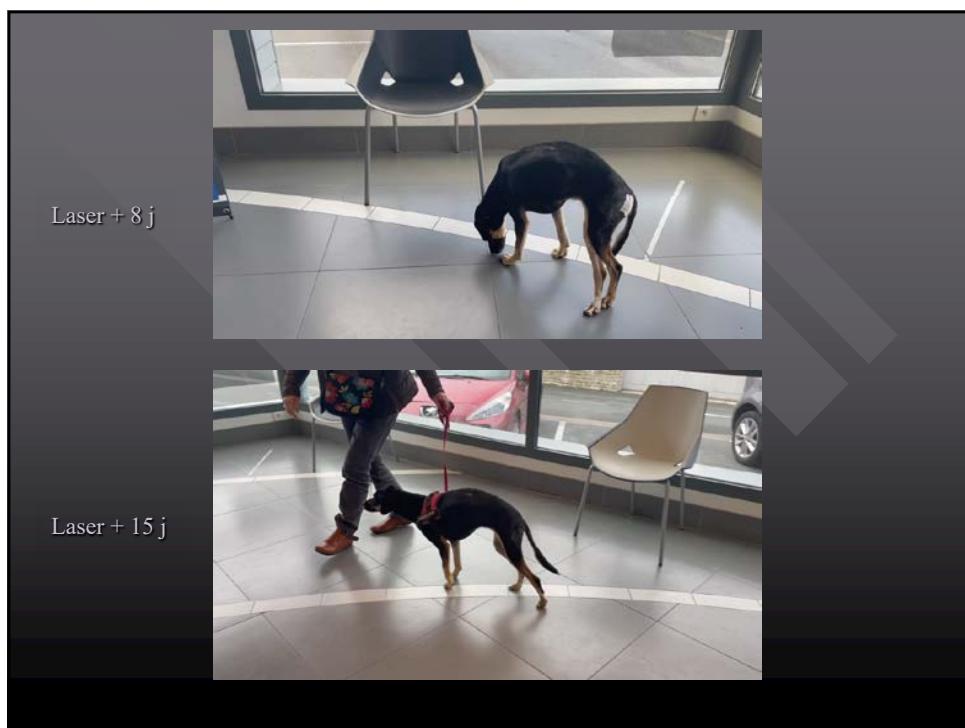
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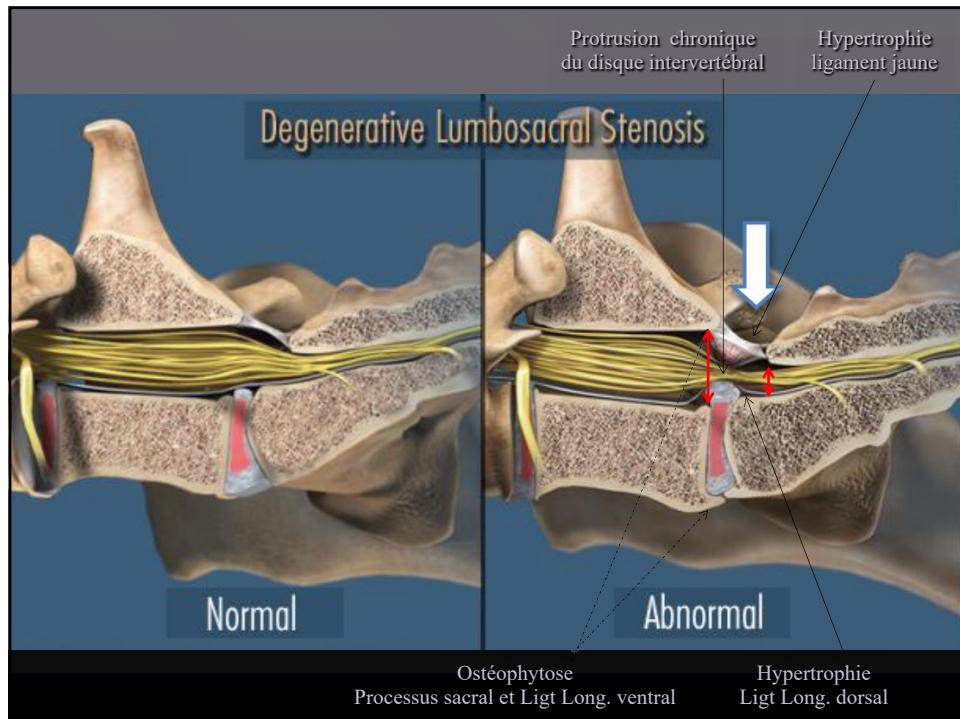
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27



28



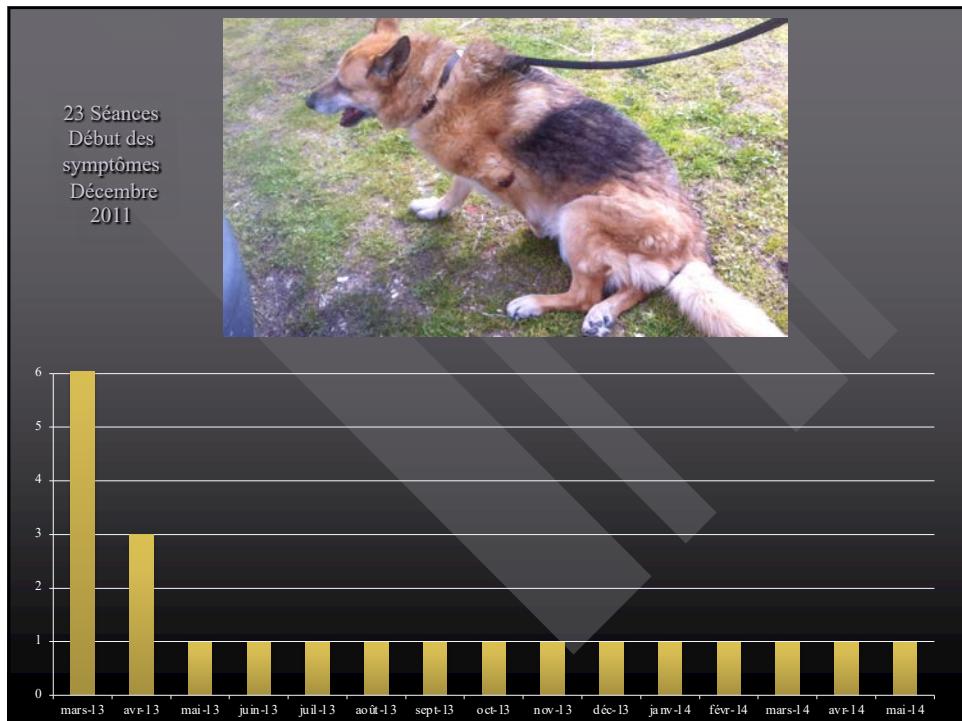
29

Rusty
Berger Allemand
14 ans 37kg
Syndrome Queue de cheval
/
Sténose lombo-sacrée dégénérative

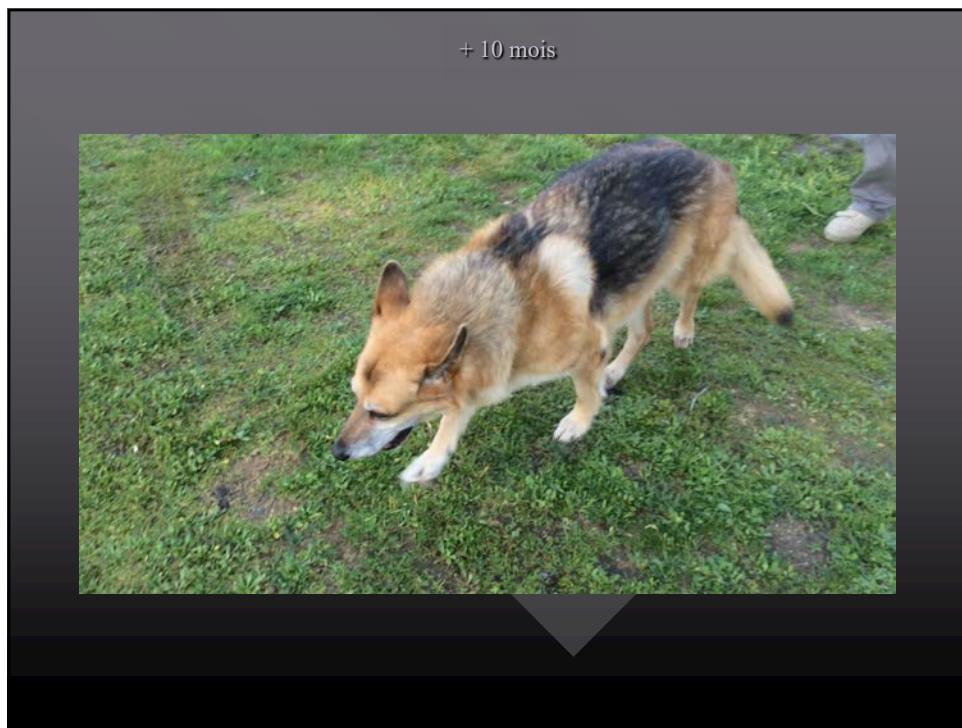
○ Parésie
○ Réticence au saut, au relever et à la montée des escaliers.
○ Automutilation de la région lombosacrée
○ Port de queue bas
○ Incontinence urinaire et fécale

○ Palpation jonction lombo-sacrée et mobilisation queue douloureuse
○ Déficit proprioceptif des mb post
○ Hypoesthésie des dermatomes
○ R. Patellaire N
○ R. Retrait mb post diminué
○ R. Périnéal diminué

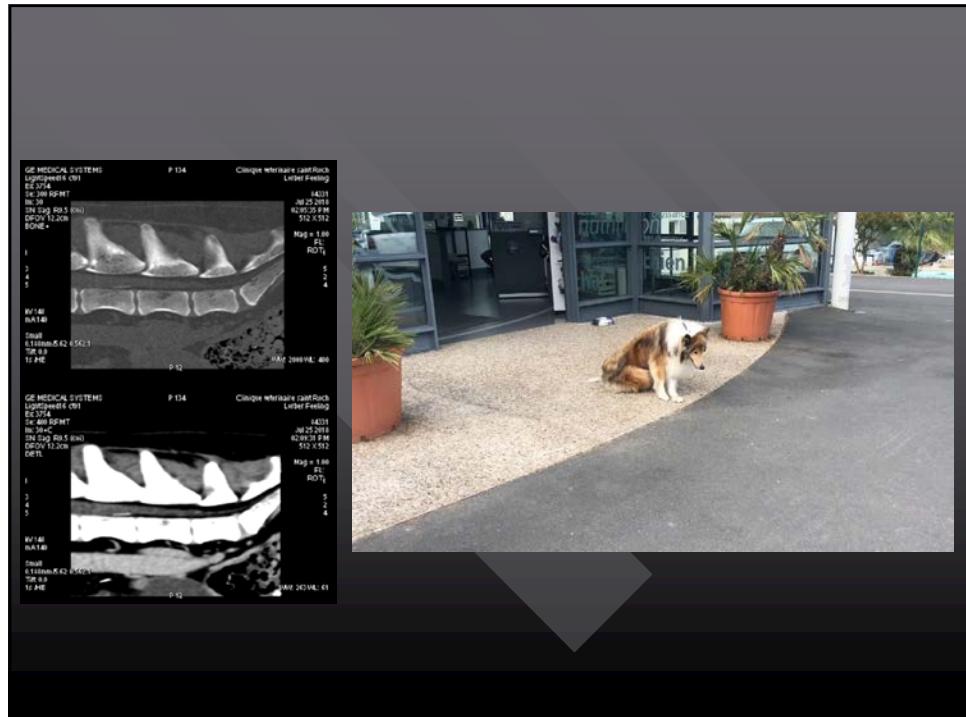
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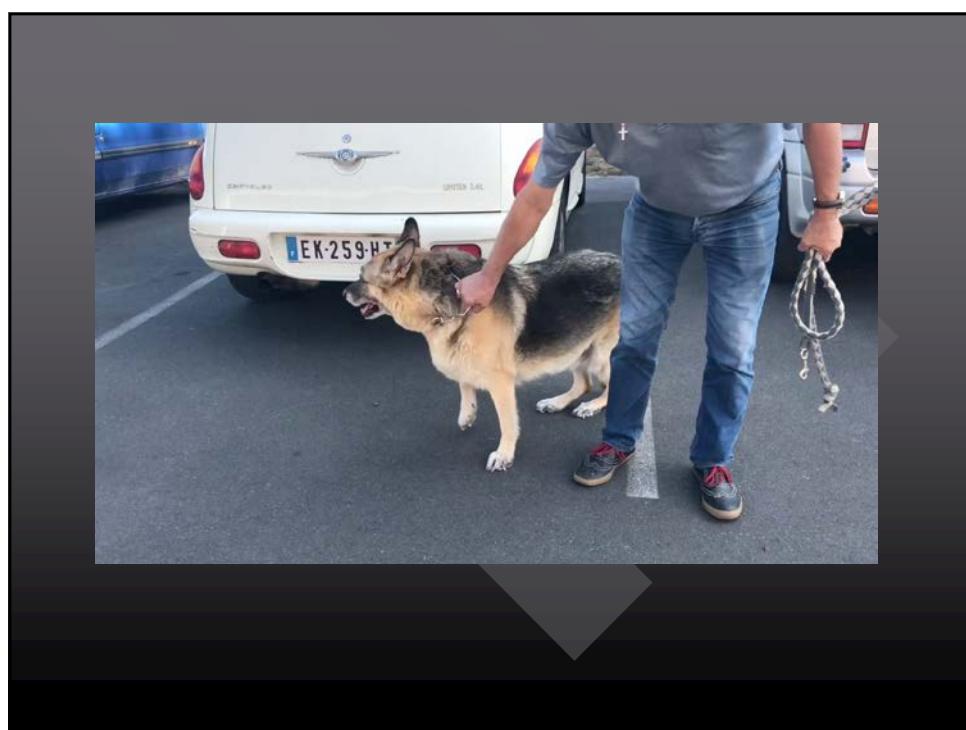
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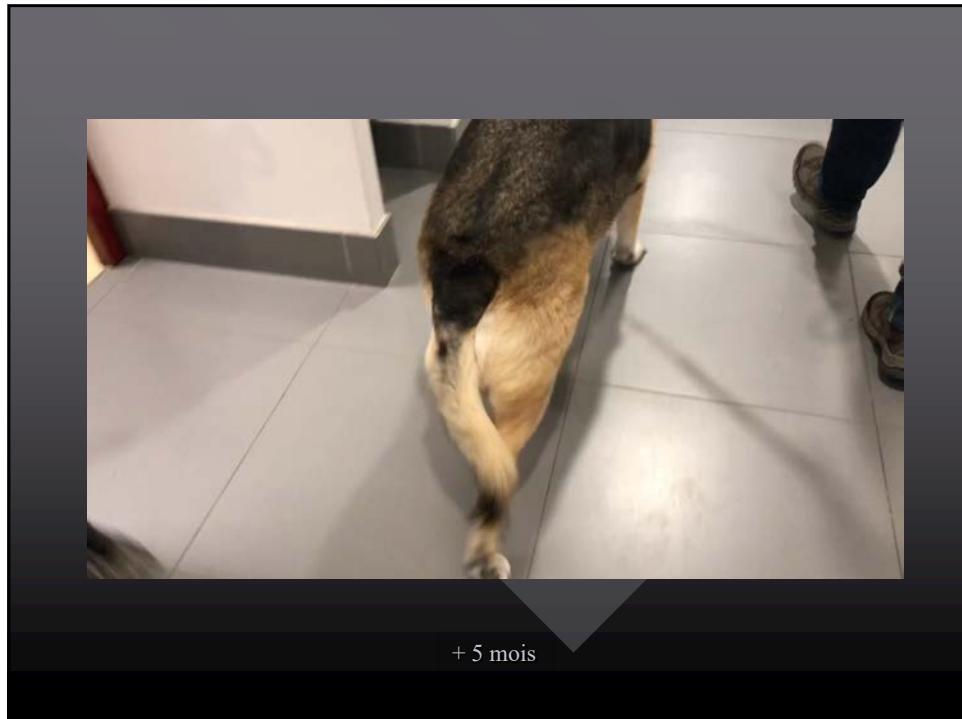
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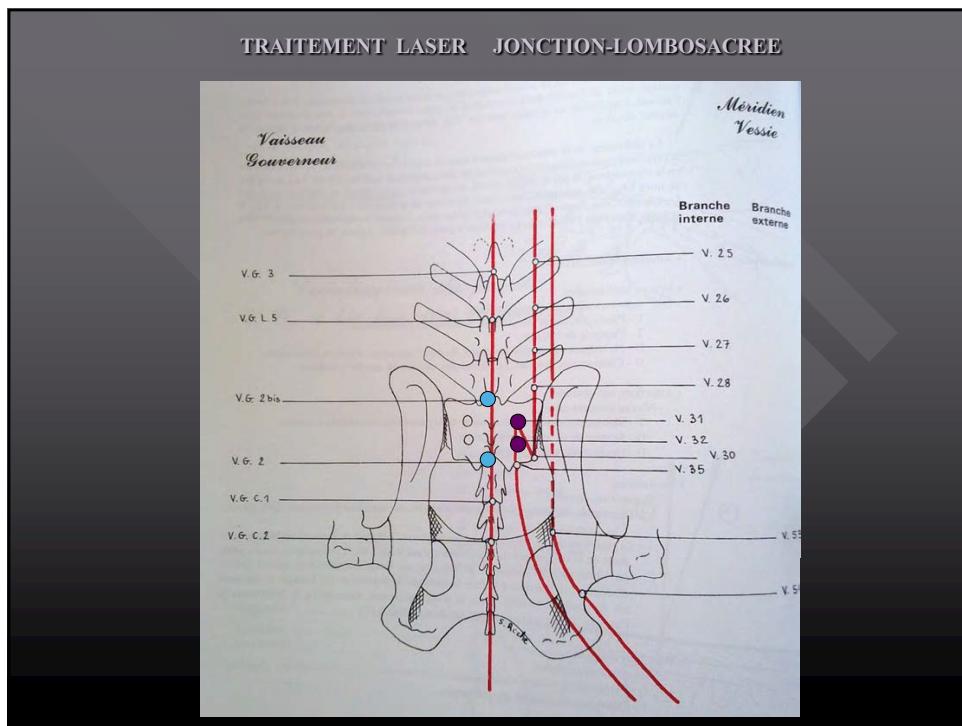
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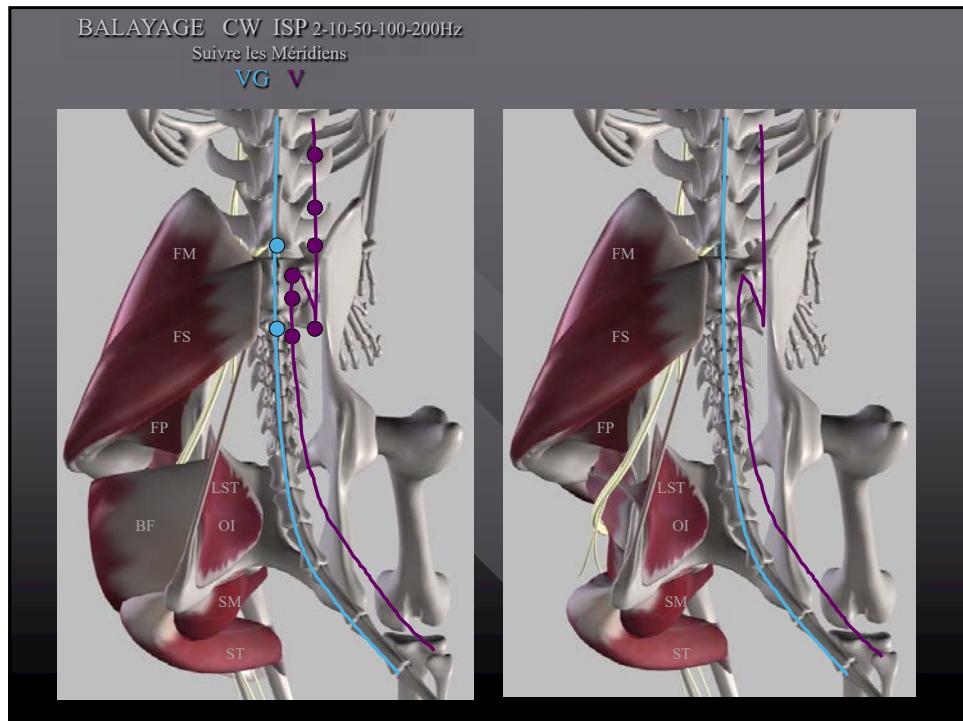
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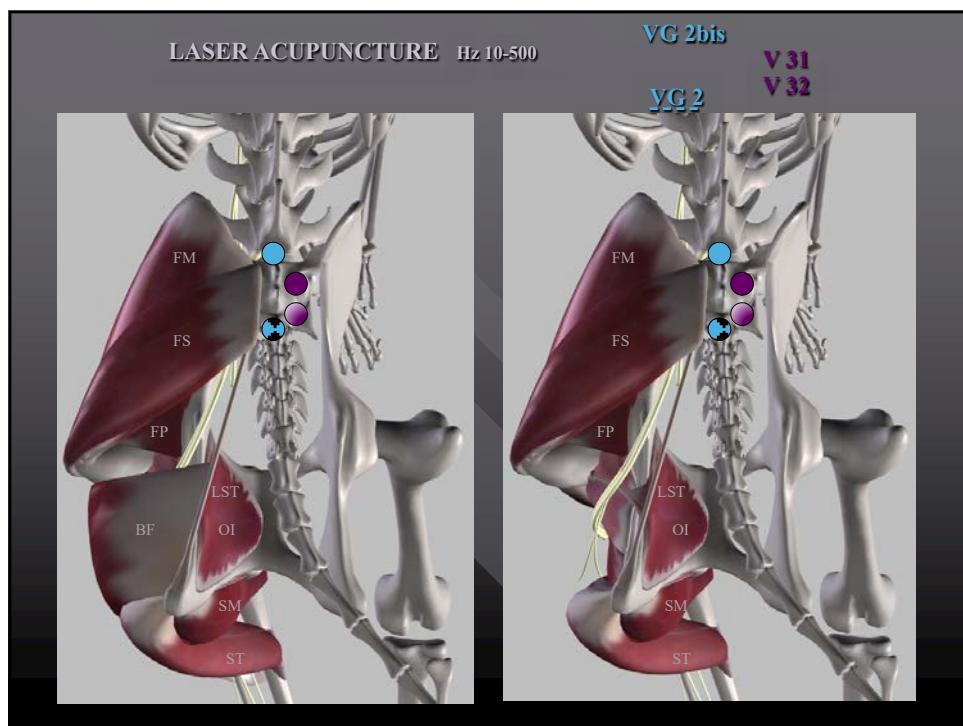
35



36



37



38

PHENOTYPE D'ARTHROSE LIE AU VIEILLISSEMENT



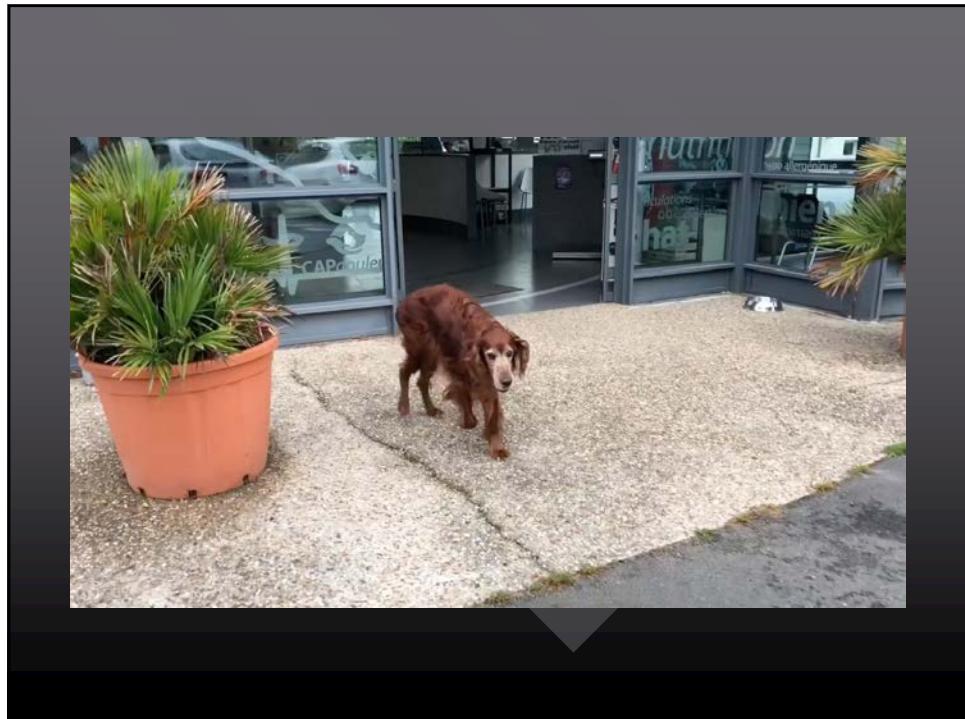
En relation avec la senescence accrue des chondrocytes,
la cachexie liée aux co-morbidités et le déficit des activités cognitives

39

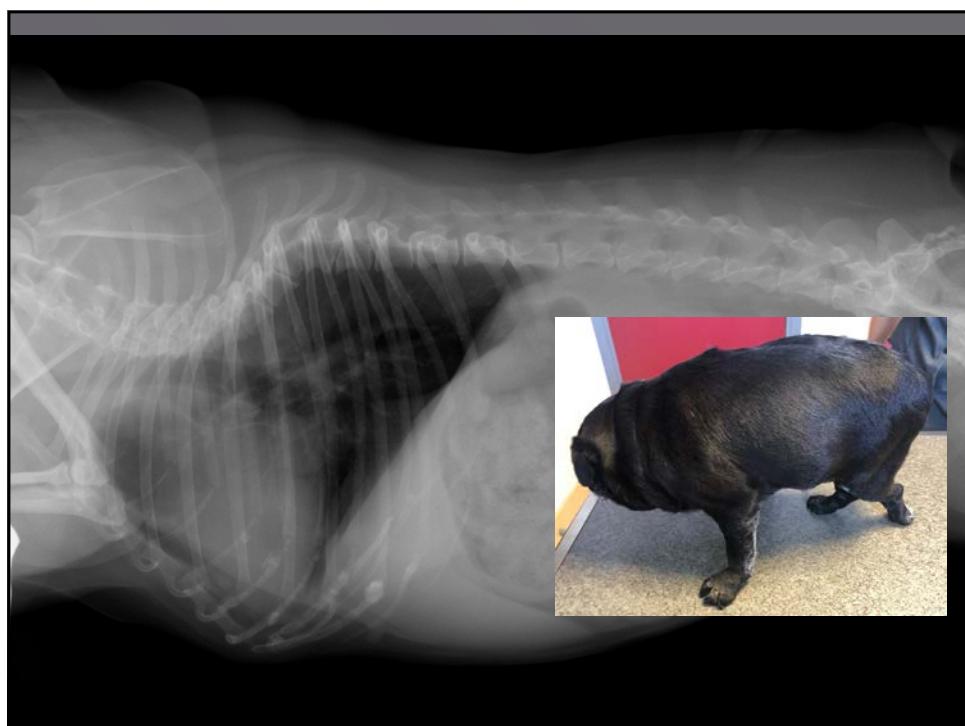


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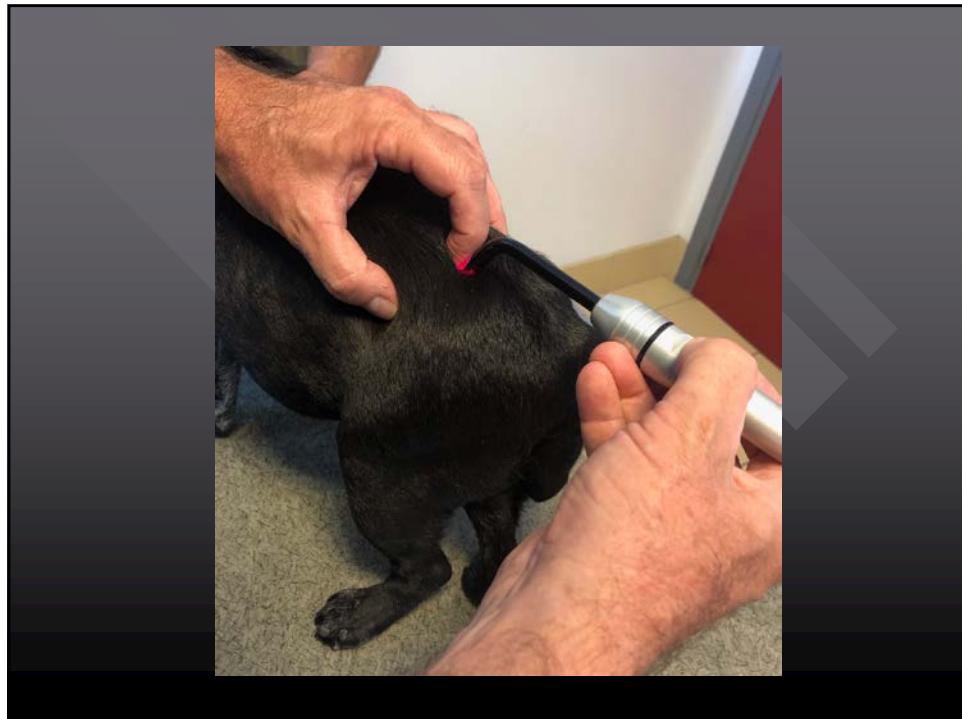
20



41



42



43

WEB CONFÉRENCE
CAPdouleur
CHANGE ANIMAL PAIN

DERMATOLOGIE ET DOULEURS

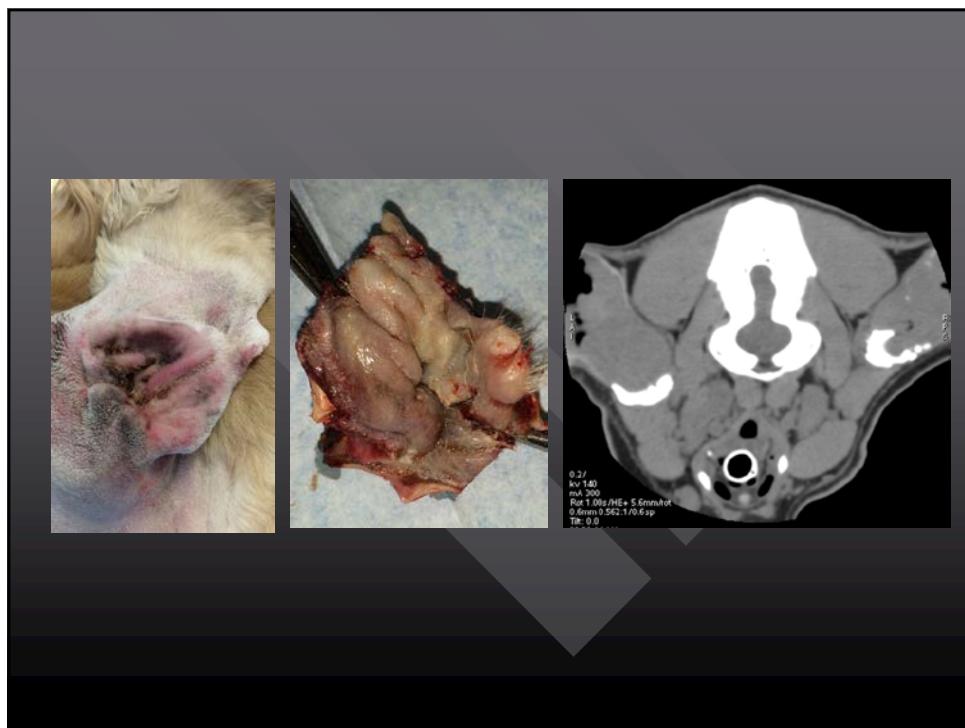
mixan
passion for animals

CAPdouleur
CHANGE ANIMAL PAIN

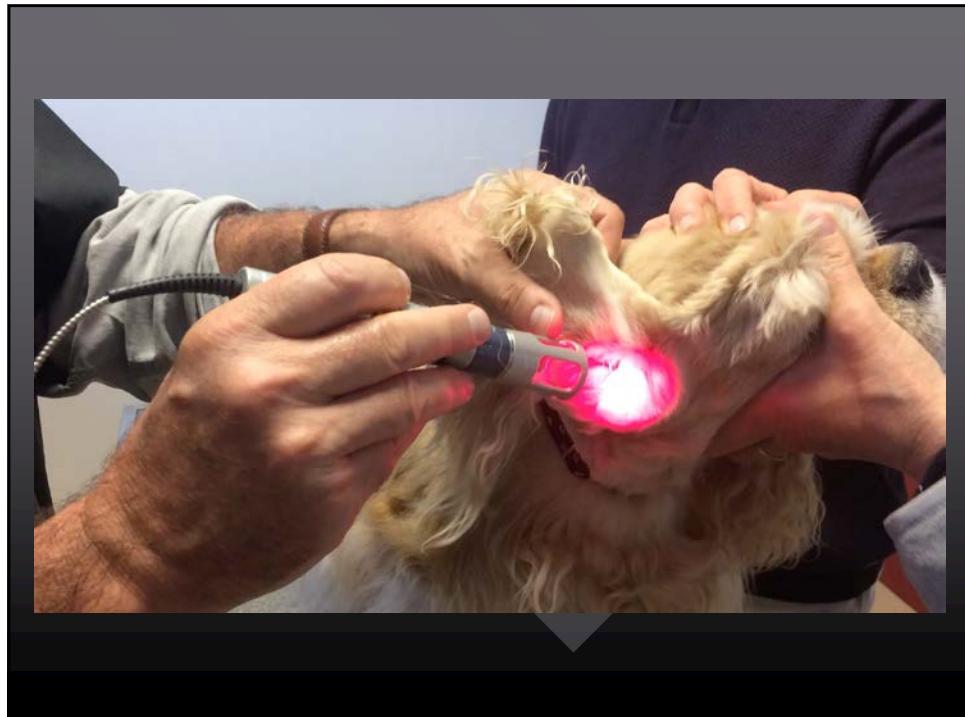
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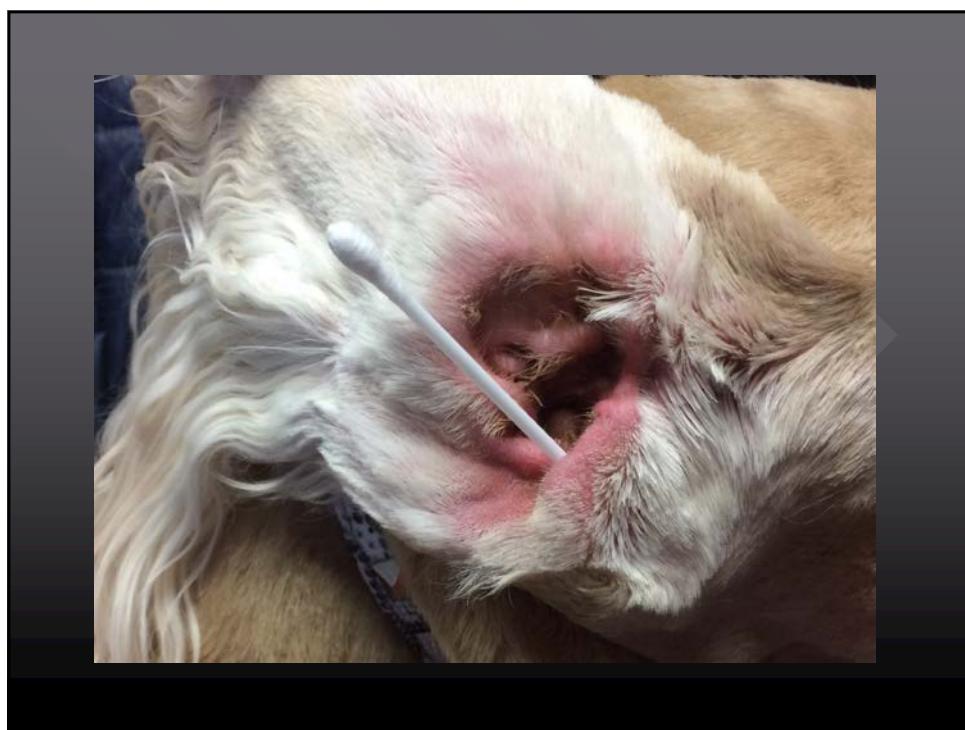
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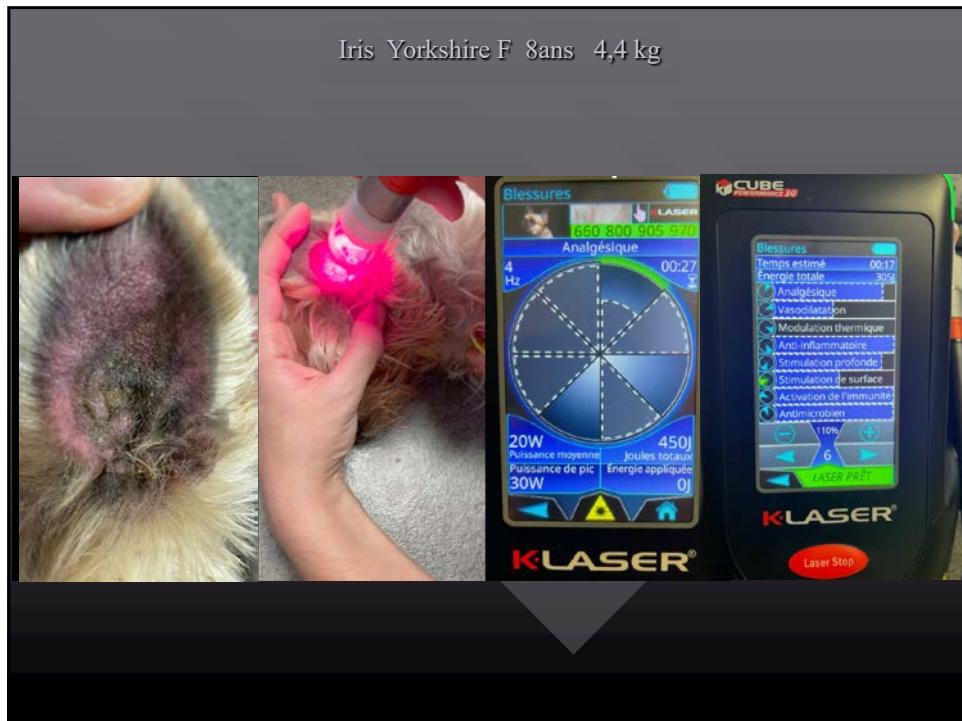
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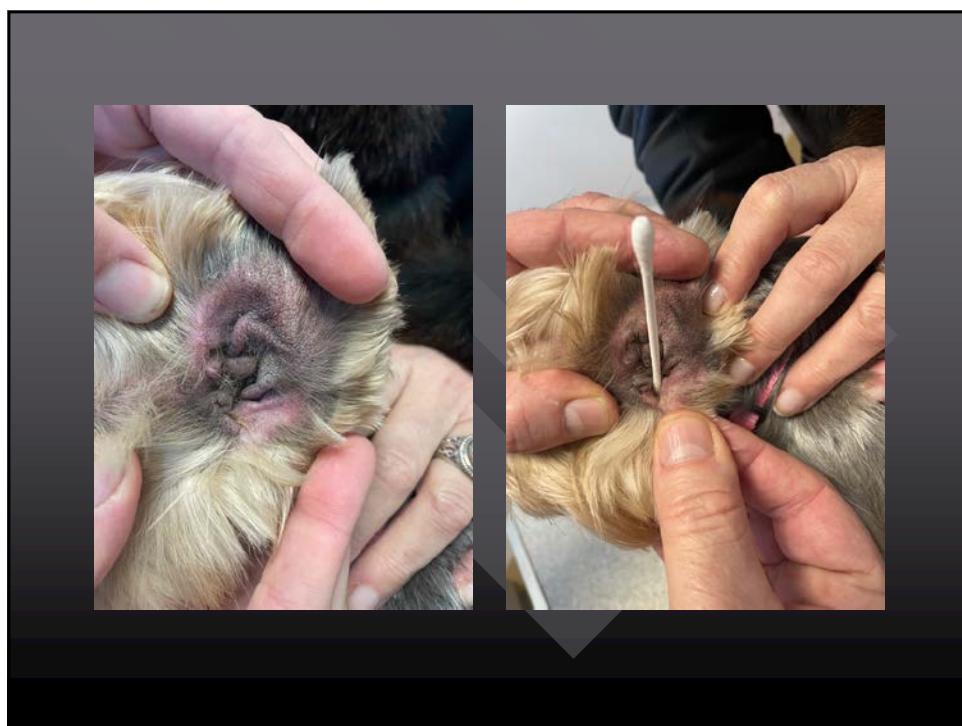
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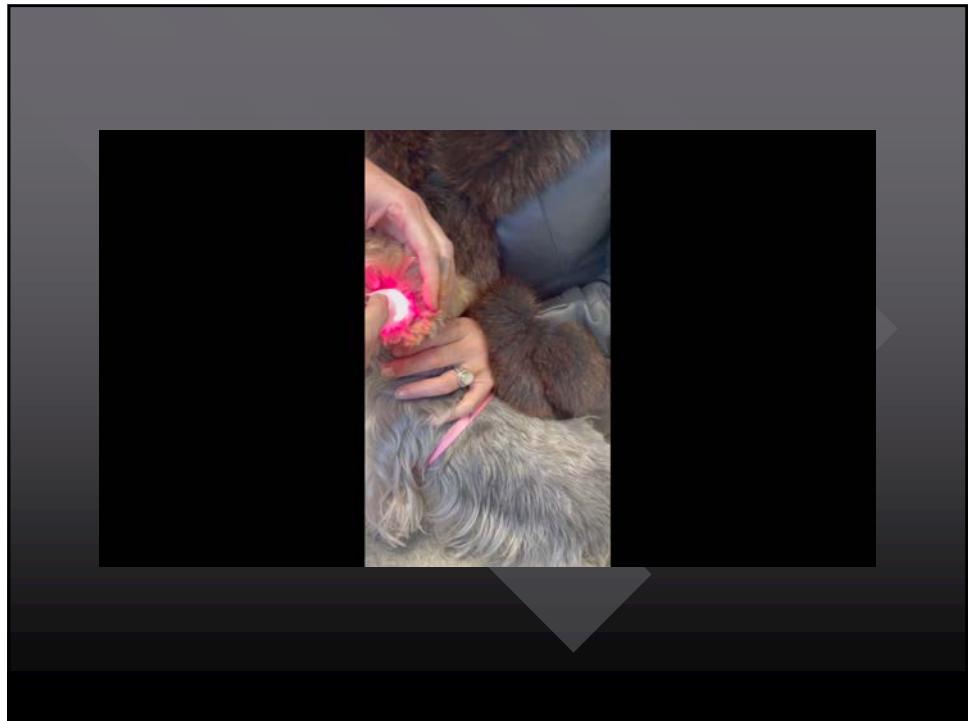
48



49



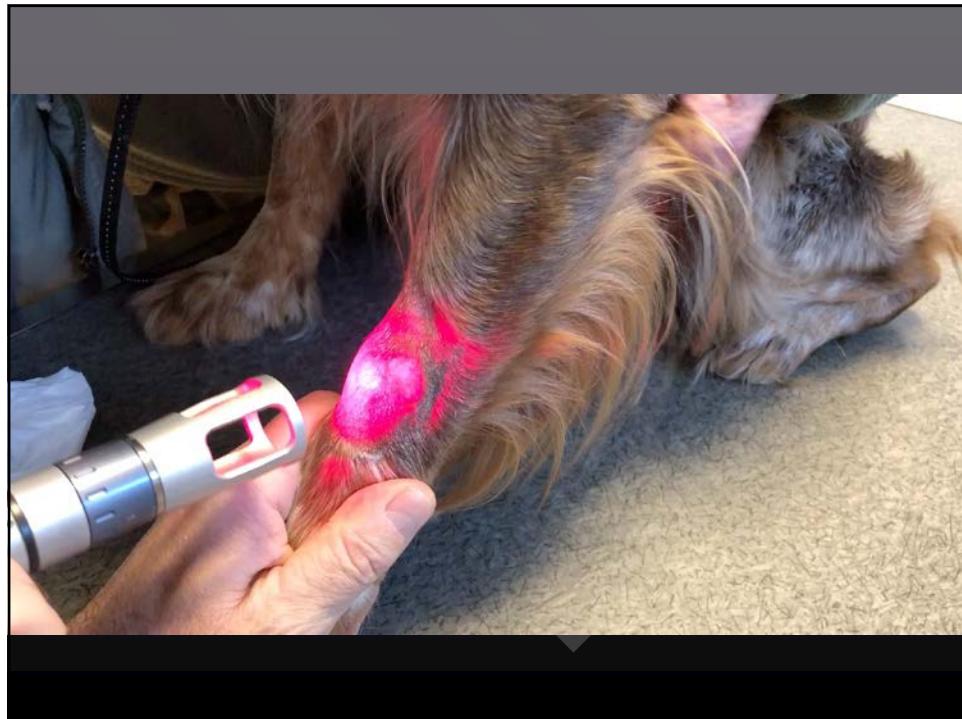
50



51



52



53

Barock Epagneul Breton
M 8ans 16,8kg

- Plaies de léchage depuis plusieurs mois
- Léchage +++
- Carcan permanent

- Laser
- J0 J7 J18
- Guérison complète à J 28

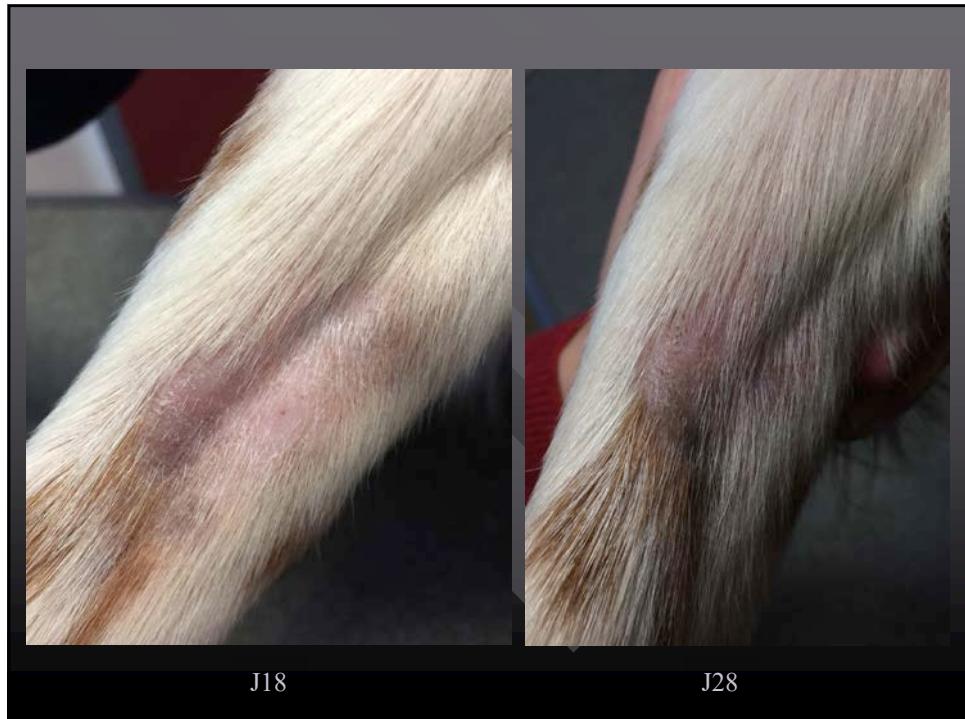
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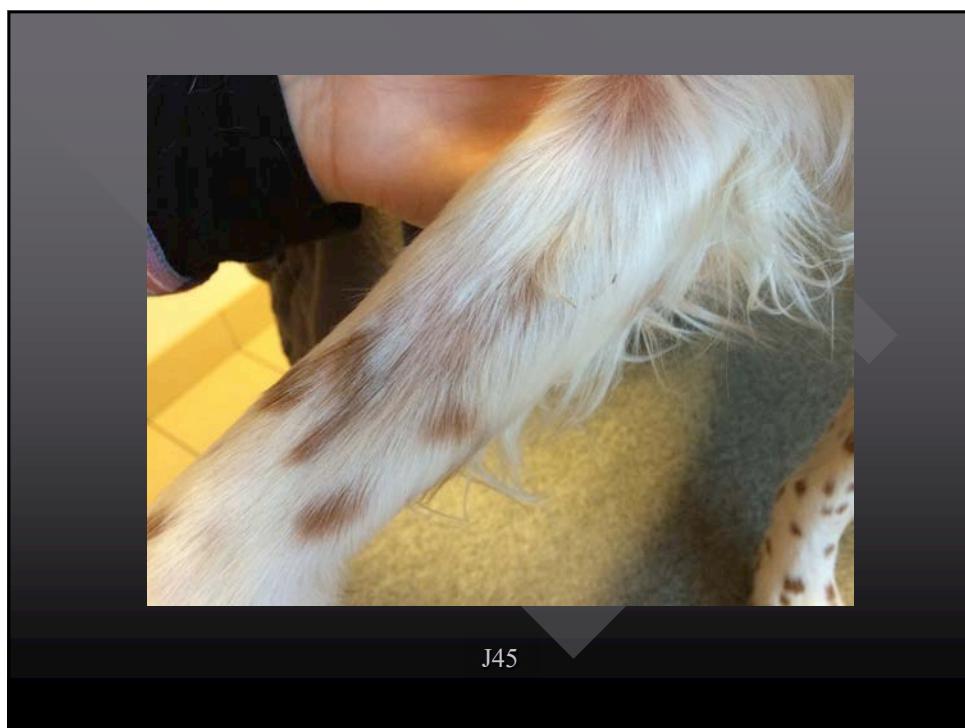
55



56



57



58



59



60



61

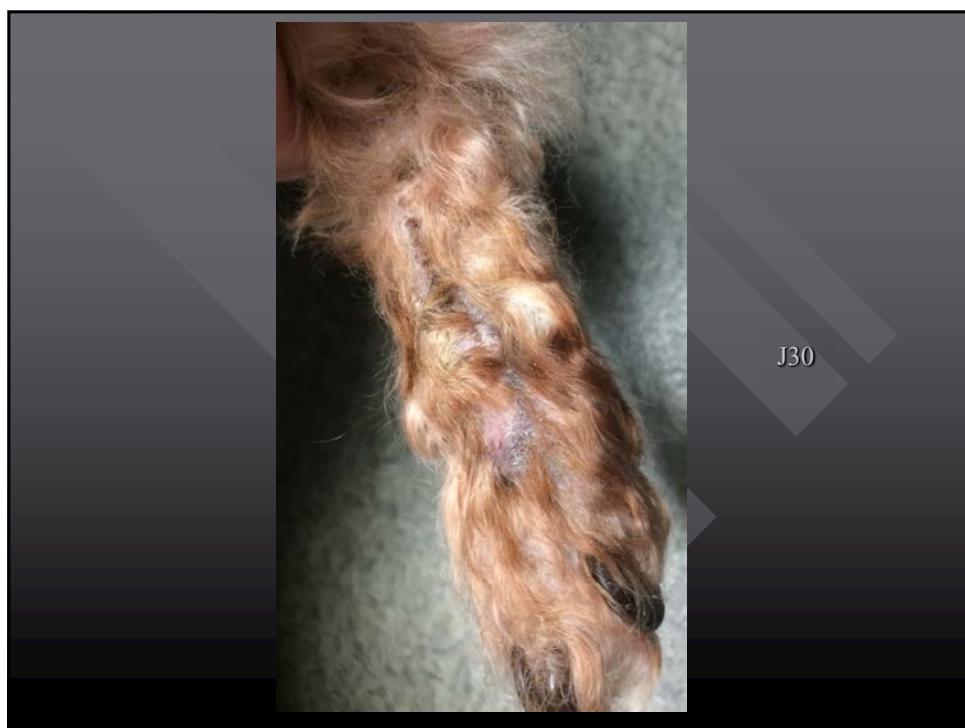
Pamplemousse Griffon Croisé
F 16 ans 4,5kg

Detailed description: This block contains information about a dog named Pamplemousse. It includes a small profile photo of the dog, its breed (Griffon Croisé), age (16 years old), and weight (4.5 kg). Below this, there is a bulleted list of symptoms and treatments. To the right of the text are two close-up photographs of a severe, raw, and heavily crusted wound on the dog's hindquarters. The wound appears to have been treated with laser therapy, as indicated by the list of treatments.

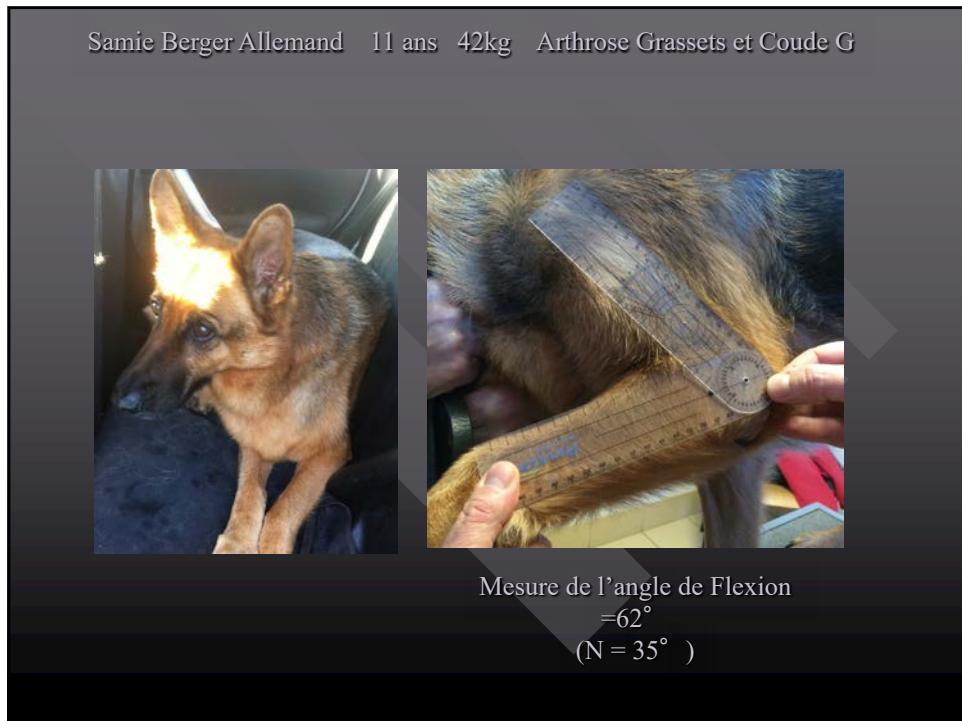
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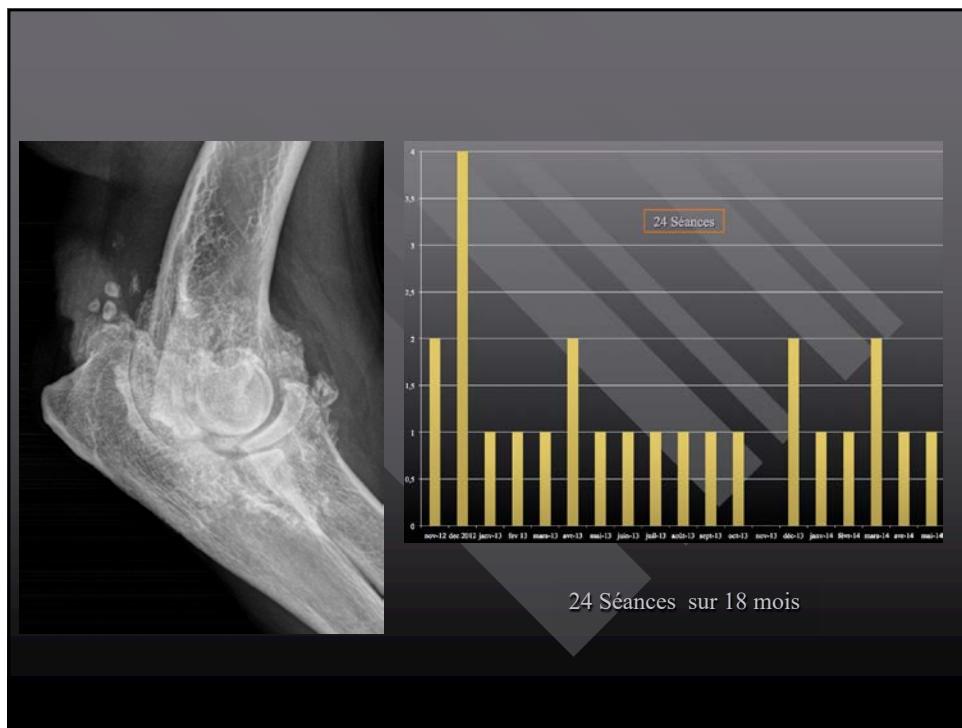
63



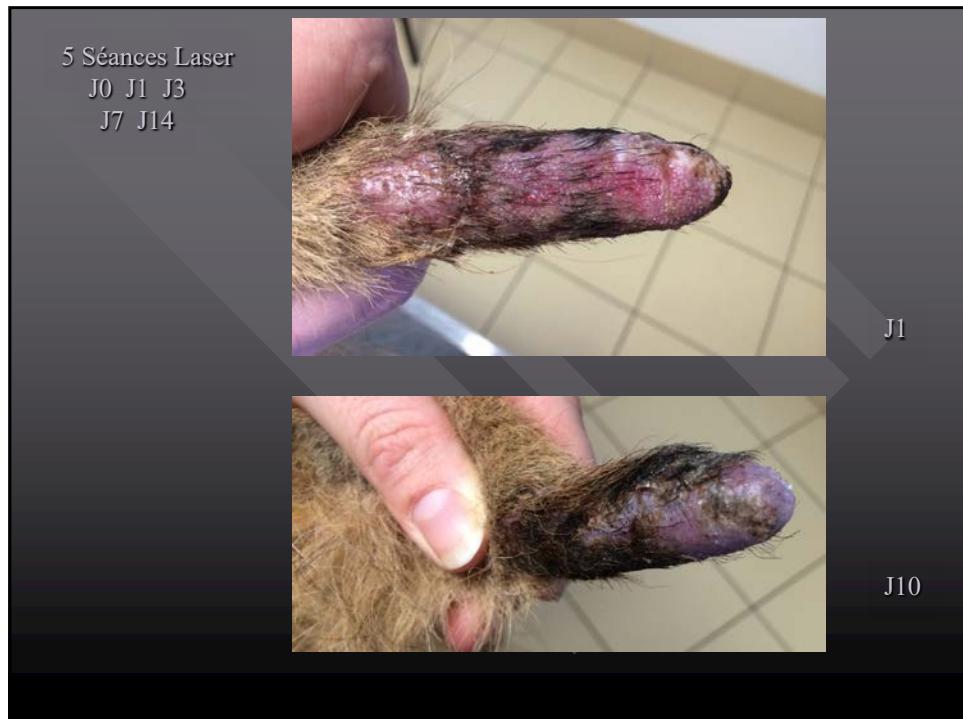
64



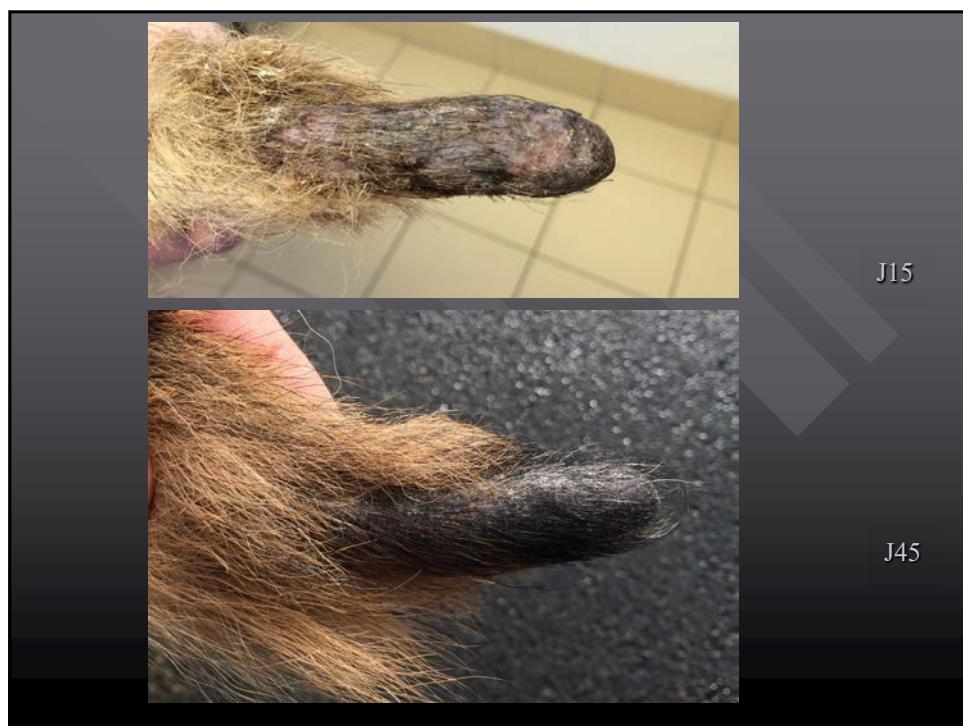
65



66



67

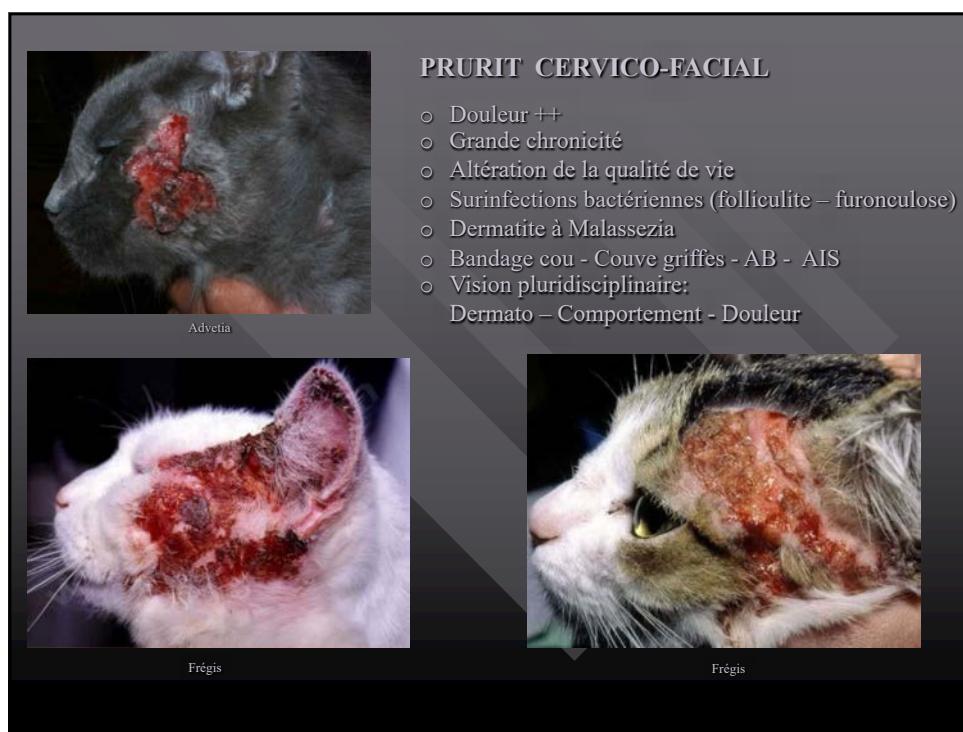


68



69

J60



70

Etiologies du PCF		
Causes	Fréquence	Éléments d'orientation
Puces	++++	Traitements APE partiel, association DMF, AEF
Trombiculose	+	Localisation base des oreilles, cou
Démodécie	-	
Gale notoédrique	-	Croutes bord libre des oreilles/ front
Gale sarcoptique	-	
Gale des oreilles	++	Otite cérumineuse
Poux	-	Lentes visibles
Cheylételliose	-	Lésions squameuses
Urticaire	-	Lésions primaires sur les tempes
Dermatite allergique	+++	
Dermatophytose	++	Aggravation par les corticoïdes
Dermatite à malassezzia	+	
Dermatoses bactériennes	+	
Herpes viride	-	Association lésions oculaires
Poxvirose	-	Lésions typiques
Calicivirose	-	Atteinte grave de l'état général
Congénital	-	Burnese
Acquis	-	Antécédents de traumas, unilatéral, allodynie
Otodectose	++	Examen auriculaire
Otite cérumineuse idiopathique	+++	Examen auriculaire
Polype	+	Examen auriculaire
Otite moyenne	+	Examen auriculaire

D'après C.Meige

71



72

Surinfections bactériennes !

- Prolifération bactérienne de surface
- Folliculite et Furonculose

Dermatite à Malassezia

- Bandage du cou
- Couvre-griffes
- AB
- AIS



73



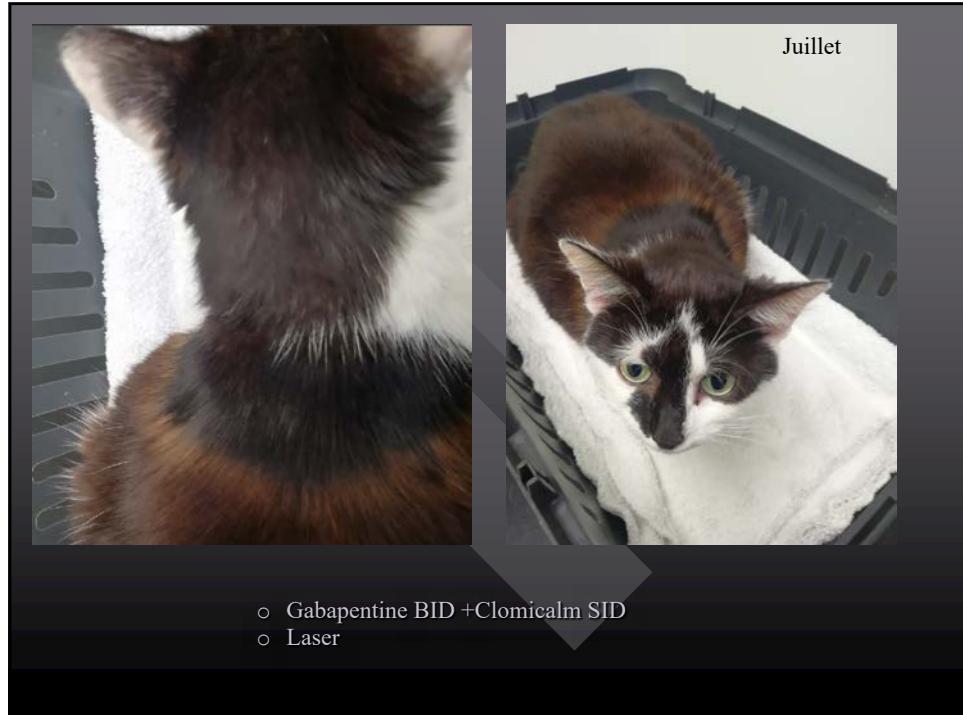
74



75



76



77



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PRISE EN CHARGE DES PLAIES

4 Phases:

1° DETERSION

- Exsudative
- Afflux de PNN
- Nécrotique

Dr Marc Leclerc



2° GRANULATION

- Parage chirurgical des débris nécrotiques
- Savonnage et rinçage abondant
- Laser thérapeutique
- Ne pas laisser la plaie se déshydrater
- Traitement AB systémique
- Toutes les 24H maximum
- Hydro-détersif absorbant Urgoclean

Dr Marc Leclerc



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4 Phases:

2° GRANULATION

- Prolifération cellulaire
- Bourgeonnement
- Recrutement de fibroblastes
- Contraction de la plaie
- Angiogenèse

Dr Marc Leclerc



- Savonnage et rinçage
- Laser thérapeutique
- Bourgeonnement
- Limitation par pommade corticoïde
- Ne pas laisser la plaie se déshydrater
- Arrêt AB
- Tous les 3 à 5 jours
- Hydrocolloïde Algoplaque

80

4 Phases:

3° EPIDERMISATION

- Epithérialisation
- Fragilité +++
- Différenciation sur le tissu de granulation
- Tous les 7 jours
- Tissus fragiles
- Précaution maximale
- Rinçage NaCl + Laser thérapeutique
- Aucune action mécanique
- Ne pas laisser la plaie se déshydrater
- Pansement immobile!
- Arrêt en fin d'épidermisation
- Pansement non adhérent Urgotul

Dr Marc Leclerc



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4 Phases:

4° REMODELAGE

- Organisation finale
- Selon les forces de tension
- Fragilité +
- Remodelage arrêt des pansements
- → crèmes hydratantes

Dr Marc Leclerc




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PRISE EN CHARGE DES PLAIES

4 Phases:

1° DETERSION

- Exsudative
- Afflux de PNN
- Nécrotique

2° GRANULATION

- Prolifération cellulaire
- Bourgeonnement
- Recrutement de fibroblastes
- Contraction de la plaie
- Angiogenèse

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PRISE EN CHARGE DES PLAIES

4 Phases:

3° EPIDERMISATION

- Epithérialisation
- Différenciation sur le tissu de granulation
- Fragilité +++

4° REMODELAGE

- Organisation finale
- Selon les forces de tension
- Fragilité +

84



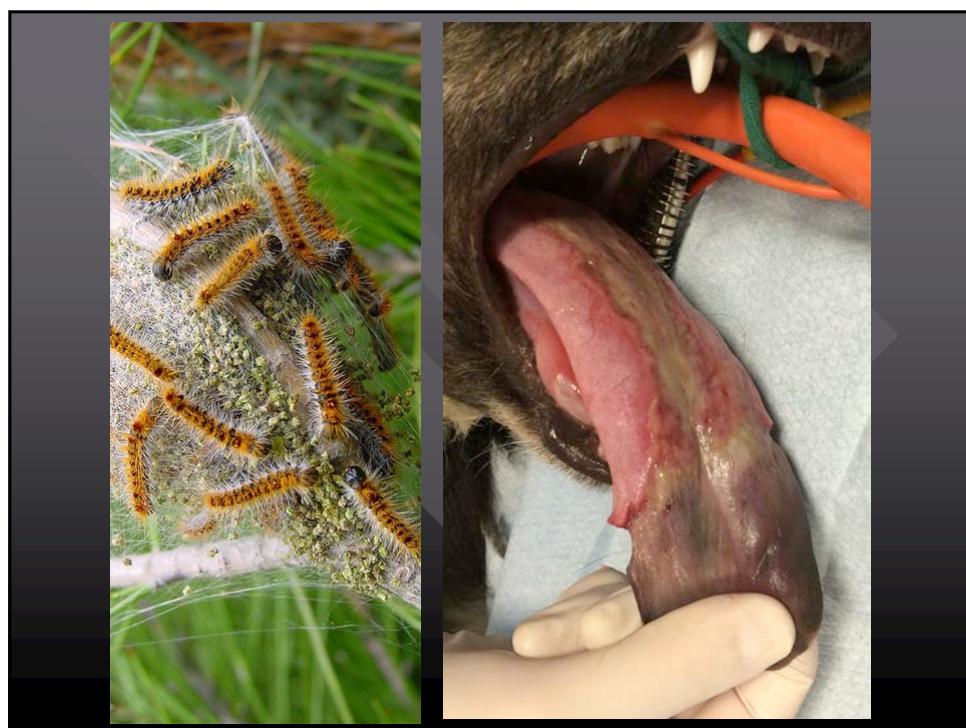
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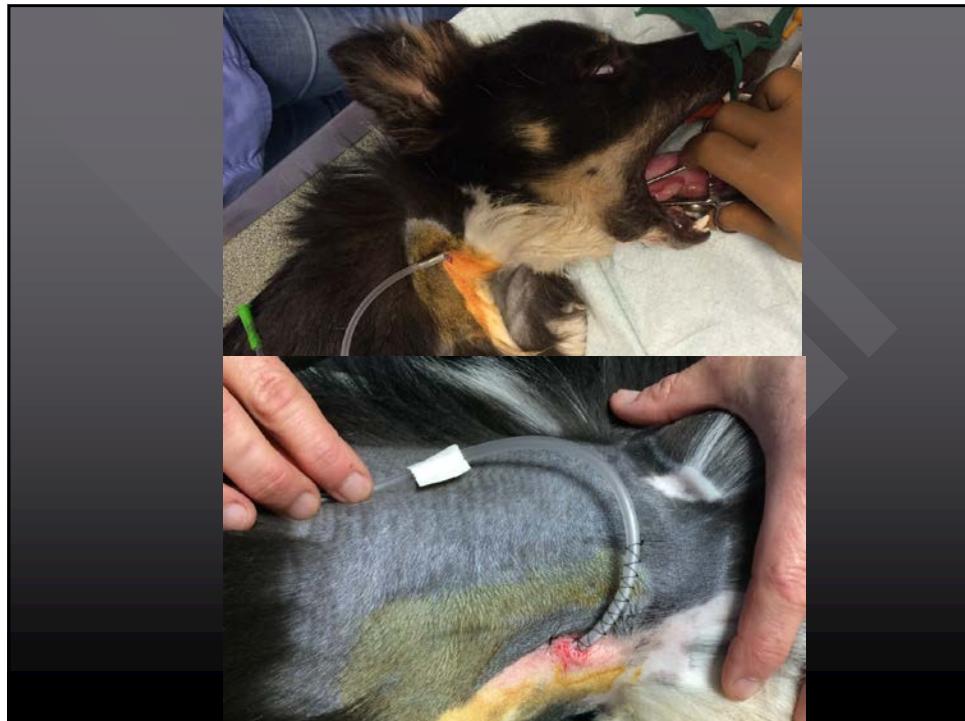
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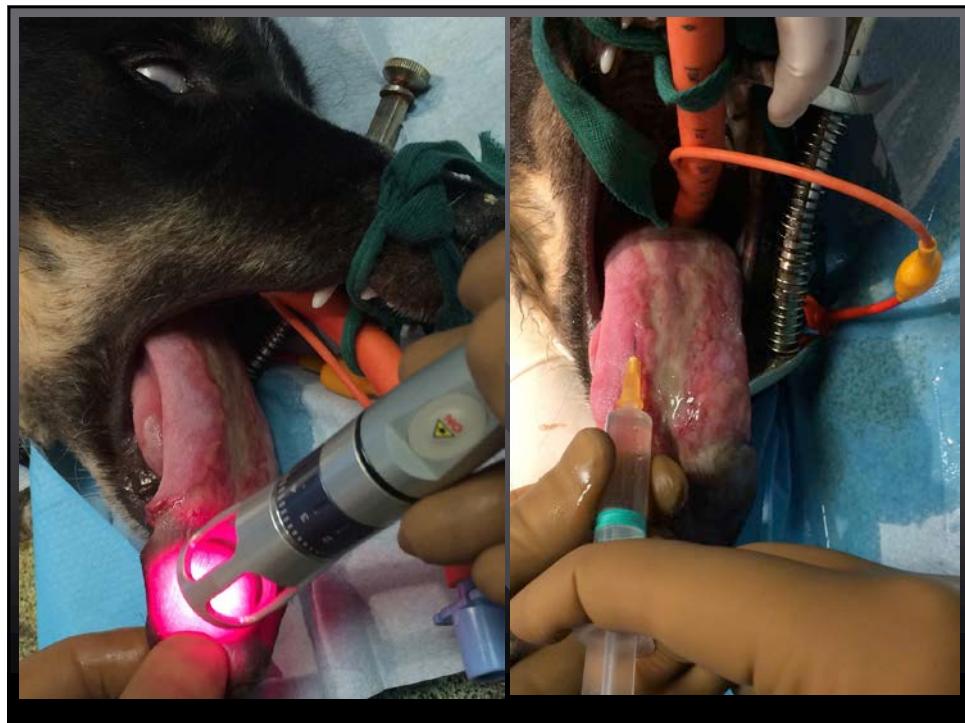
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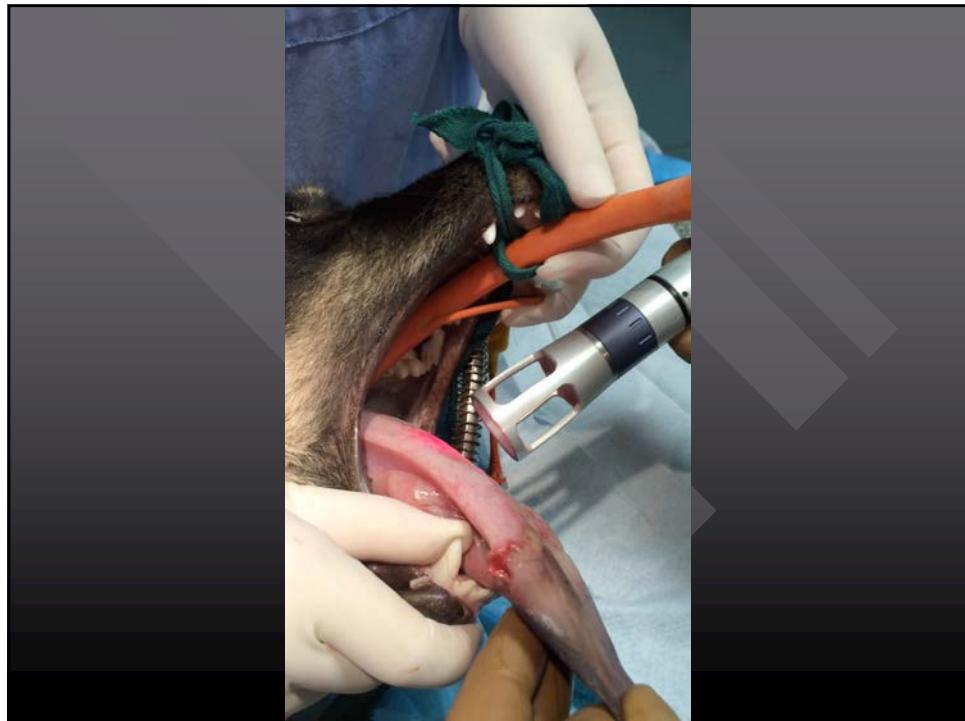
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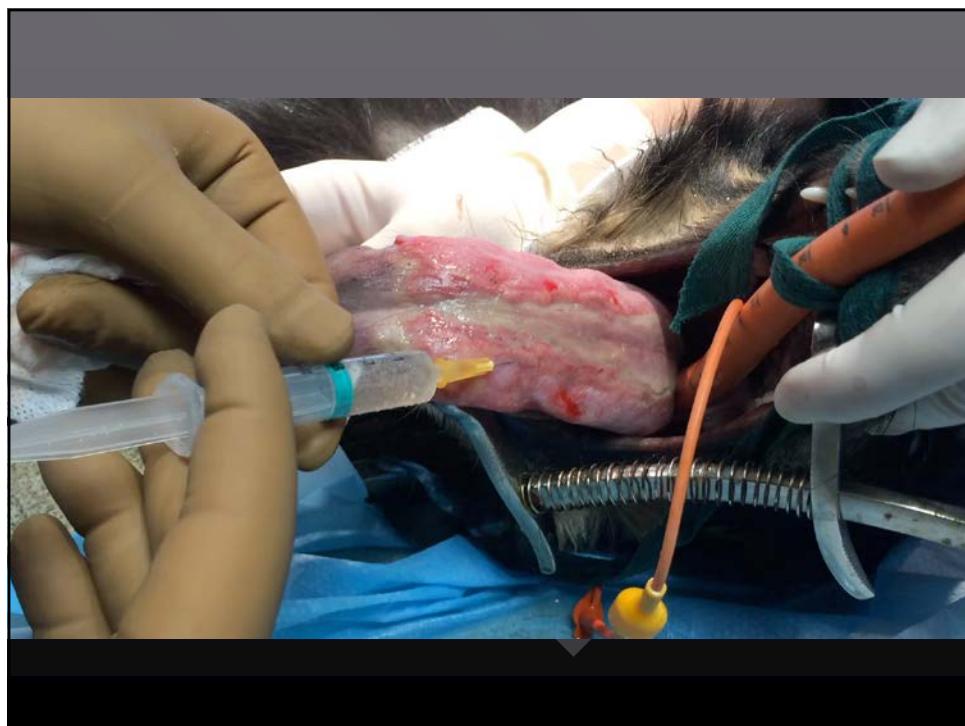
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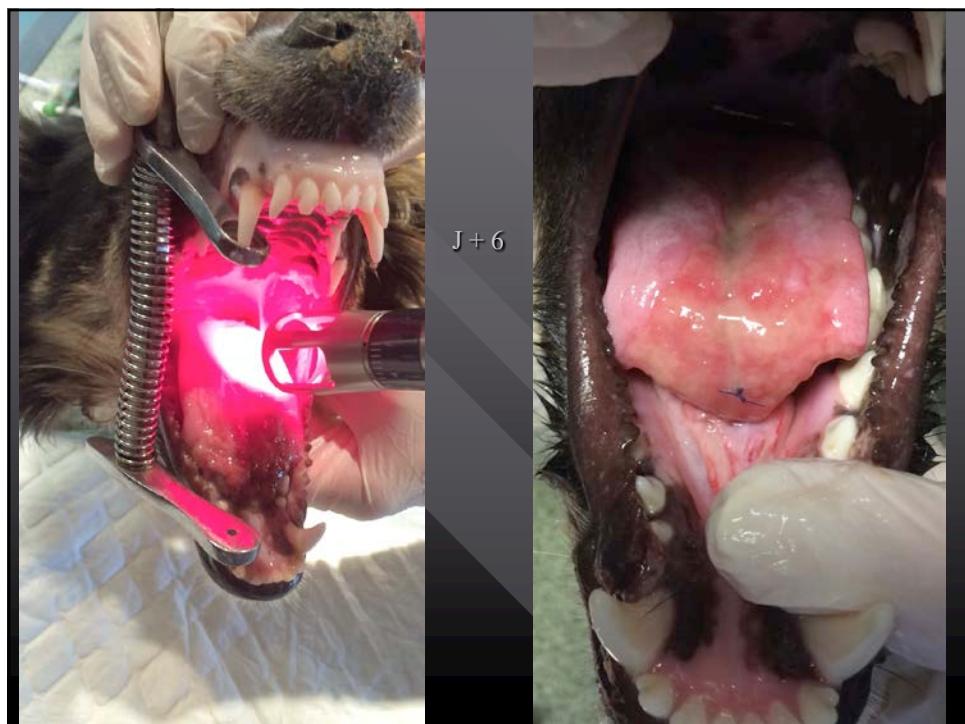
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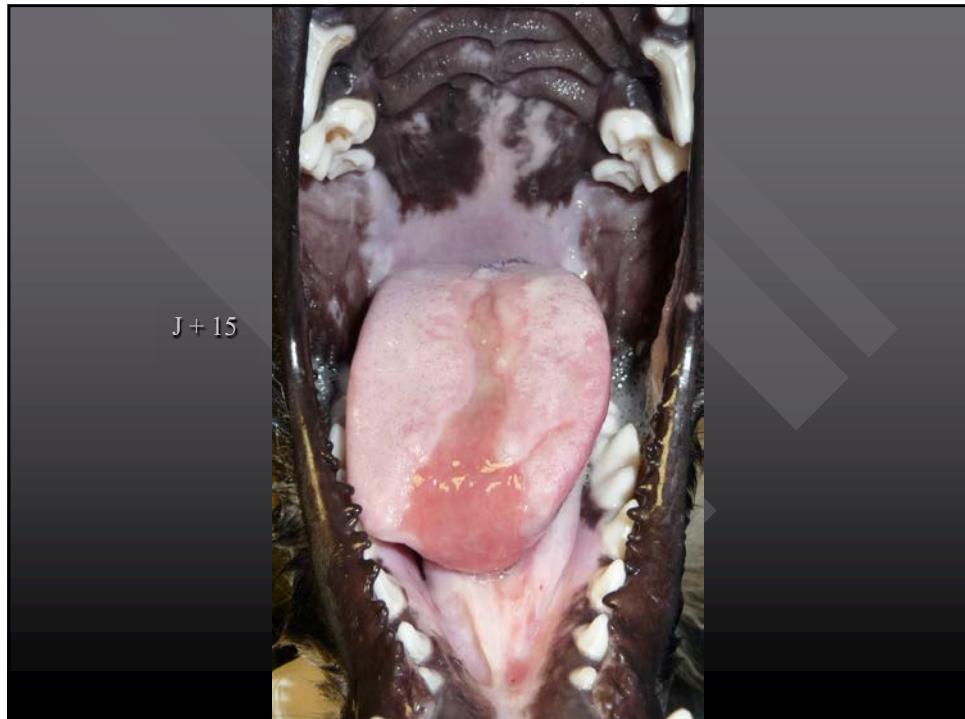
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WEB CONFÉRENCE
CAPdouleur
CHANGE ANIMAL PAIN

CGSF ET DOULEURS

mikan
passion for animals

CAPdouleur
CHANGE ANIMAL PAIN

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Origine multifactorielle:

- Prolifération bactérienne anaérobie

*Tannerella forsythia**Pasteurella multocida*

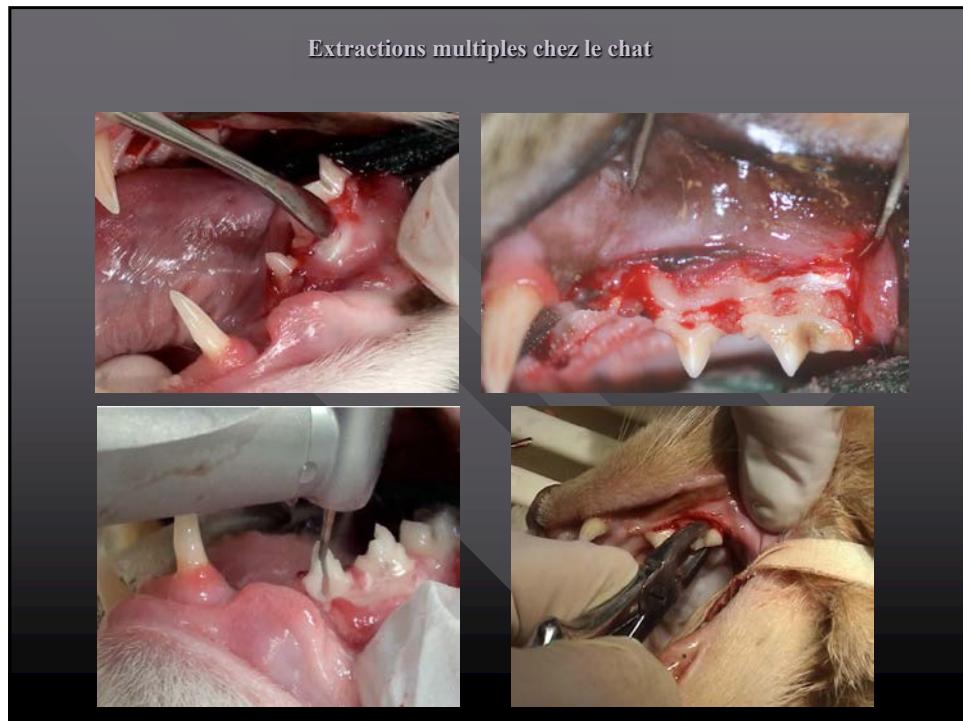
- Surinfection virale

*FIV FeLV**80-100% Calicivirus*

- Dysfonctionnement immunitaire

Hypersensibilité aux antigènes bactériens et viraux

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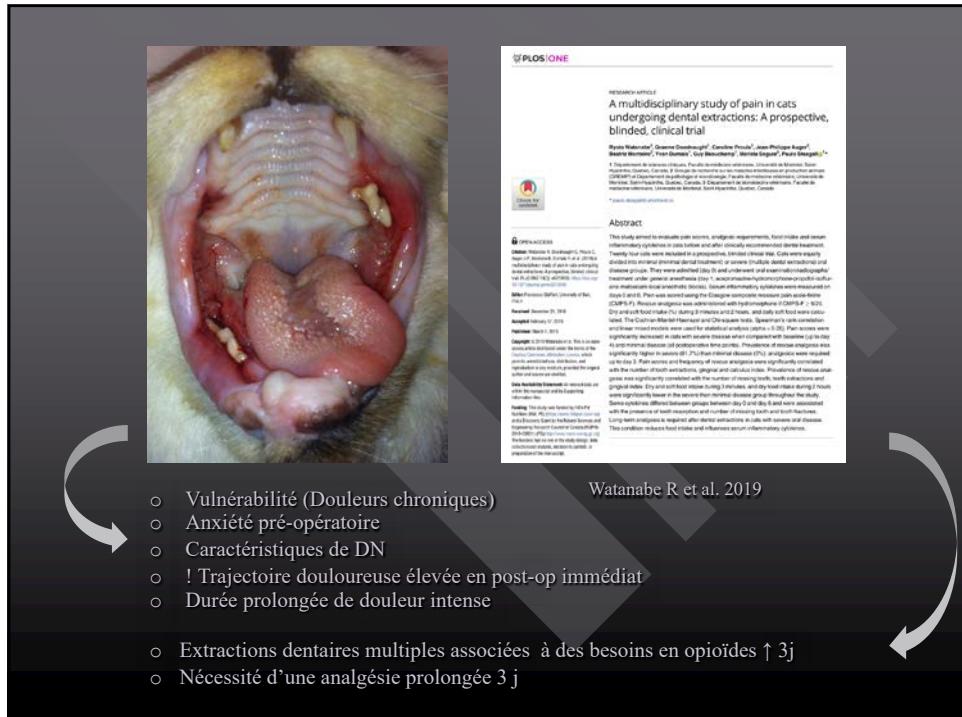
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d'après Philippe Hennet



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Analgésie per et post-opératoire

Sédation

- Médetomidine + Méthadone + Midazolam

Induction

- Kétamine Propofol

Per-opératoire

- CRI Méthadone + Kétamine

Post-opératoire

- CRI Méthadone + Kétamine
- Méloxicam IV. Relais vo 4-7j
- Gabapentine
- Tramadol (Antalgique de secours)

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Anesthésies Loco-régionales



Anesthésie infraorbitaire



Anesthésie maxillaire

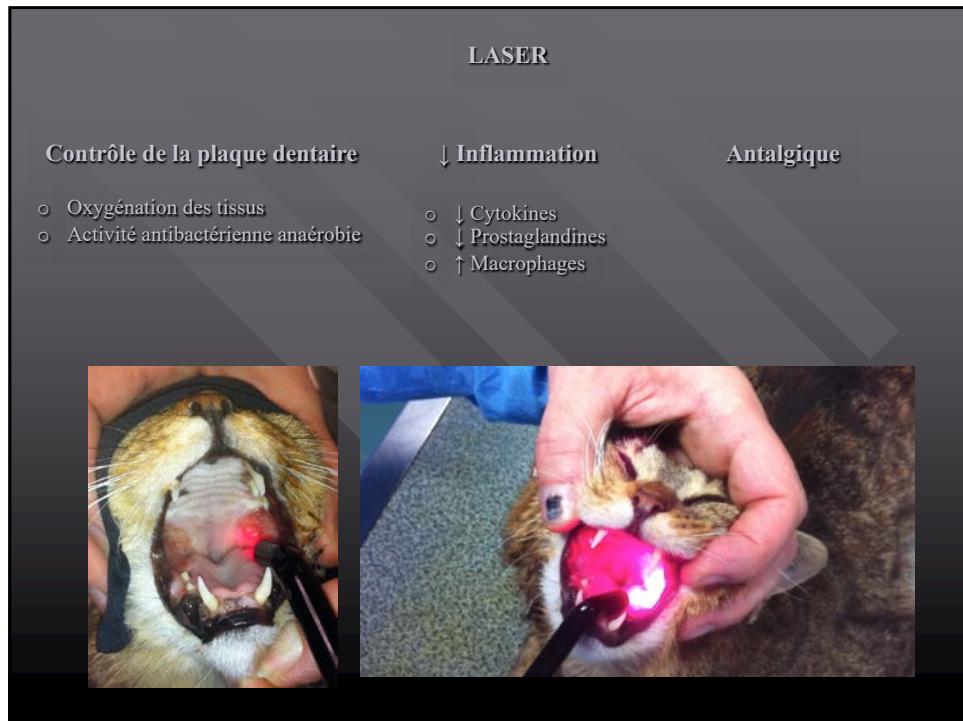


Anesthésie mandibulaire

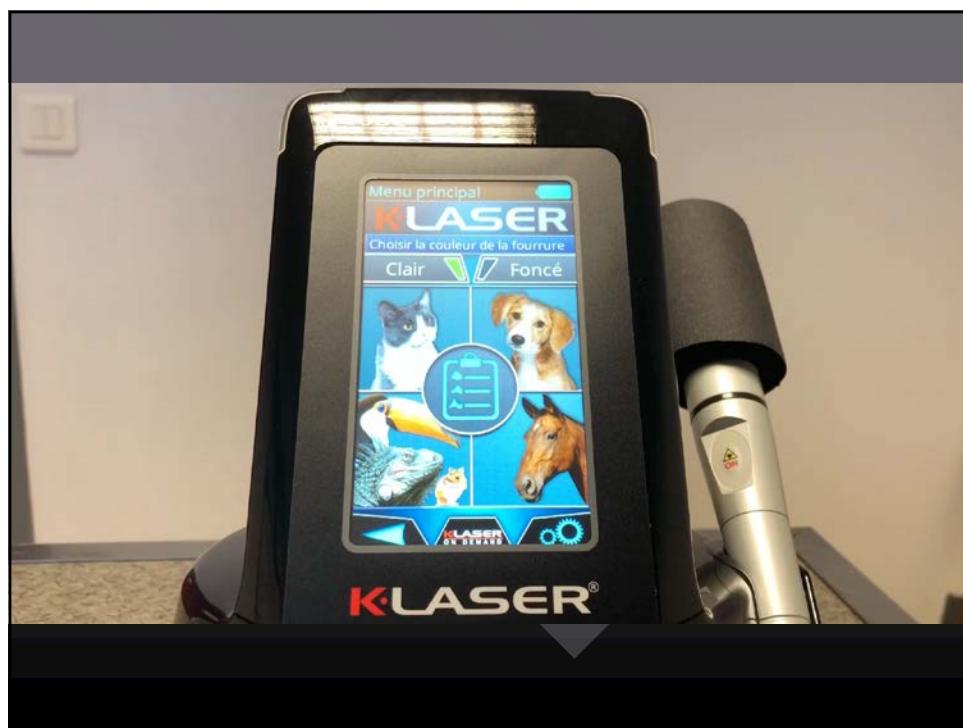


Ropivacaïne 1% 10mg/ml 2mg/kg
 CT 5kg max 10mg = 1ml 0,2 ml/bloc Durée: 4-6h

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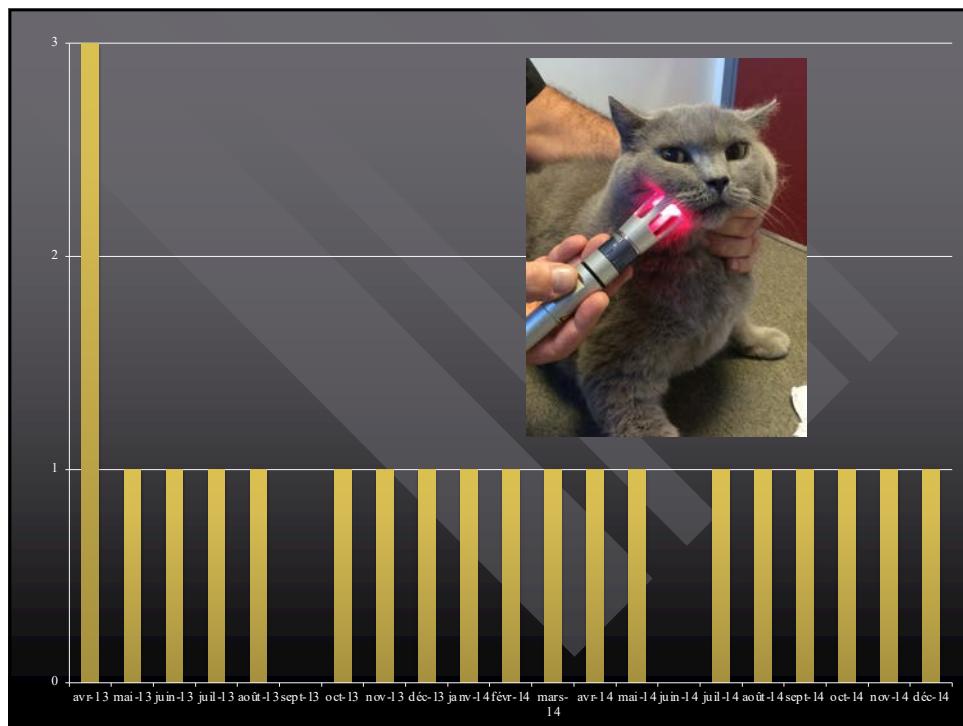
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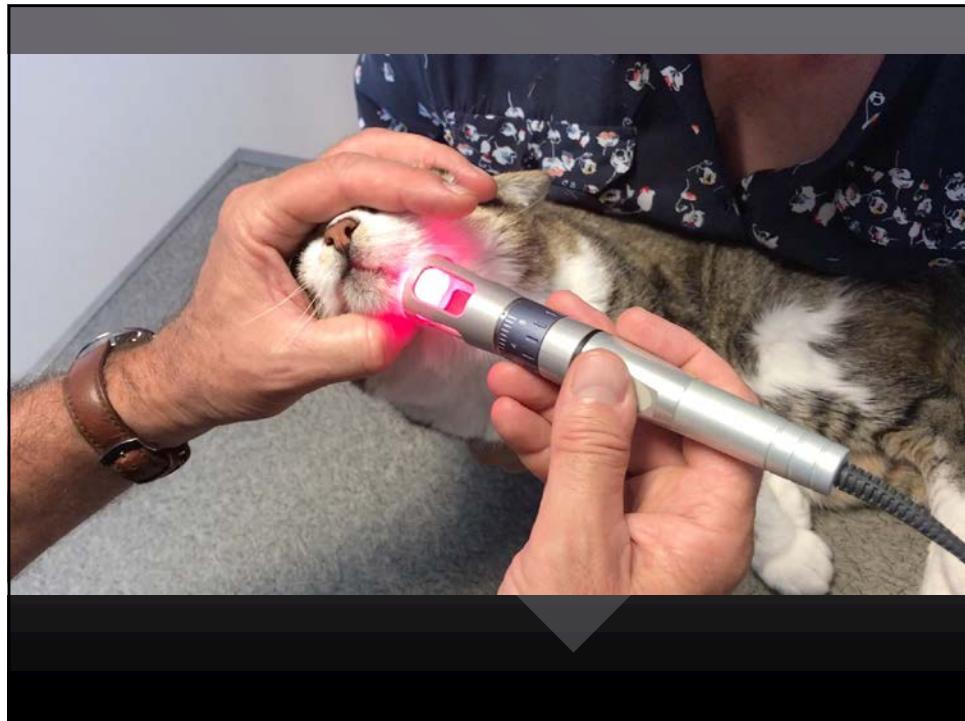
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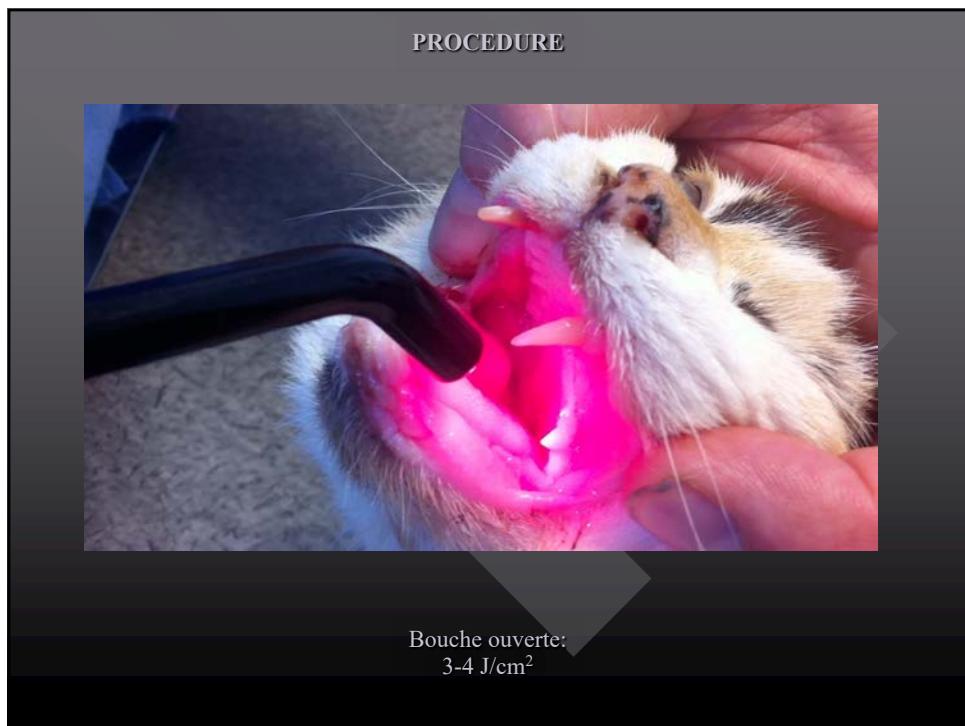
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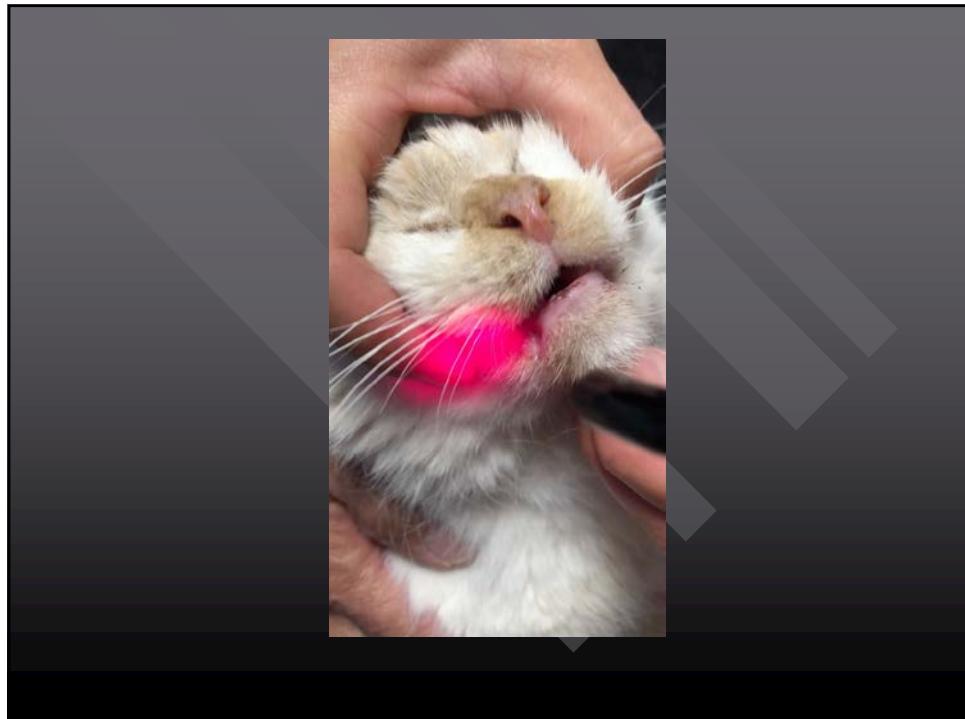
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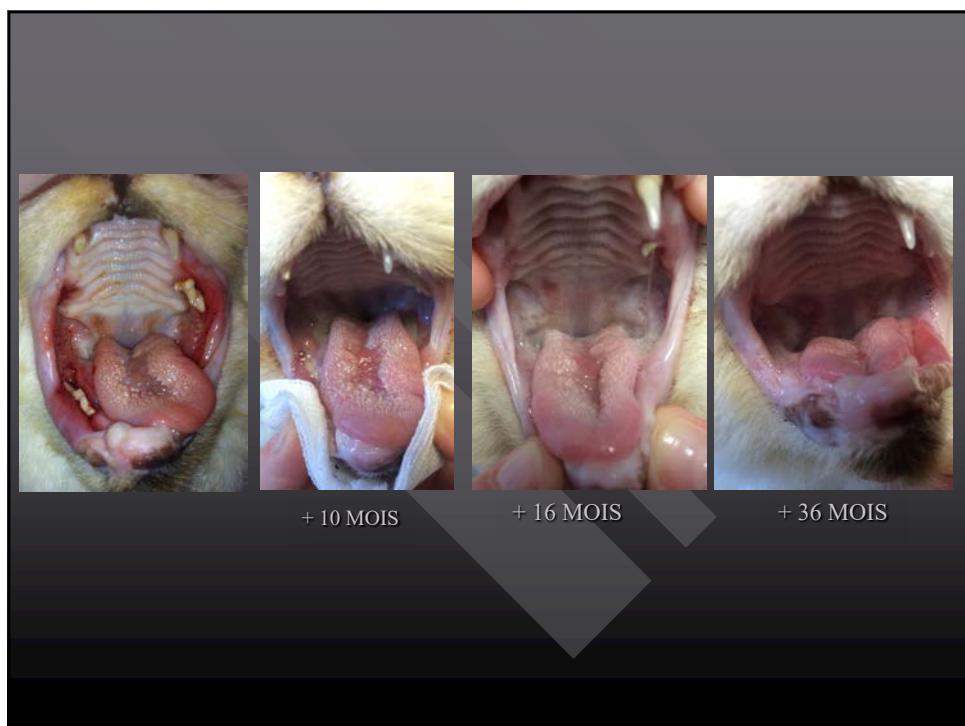
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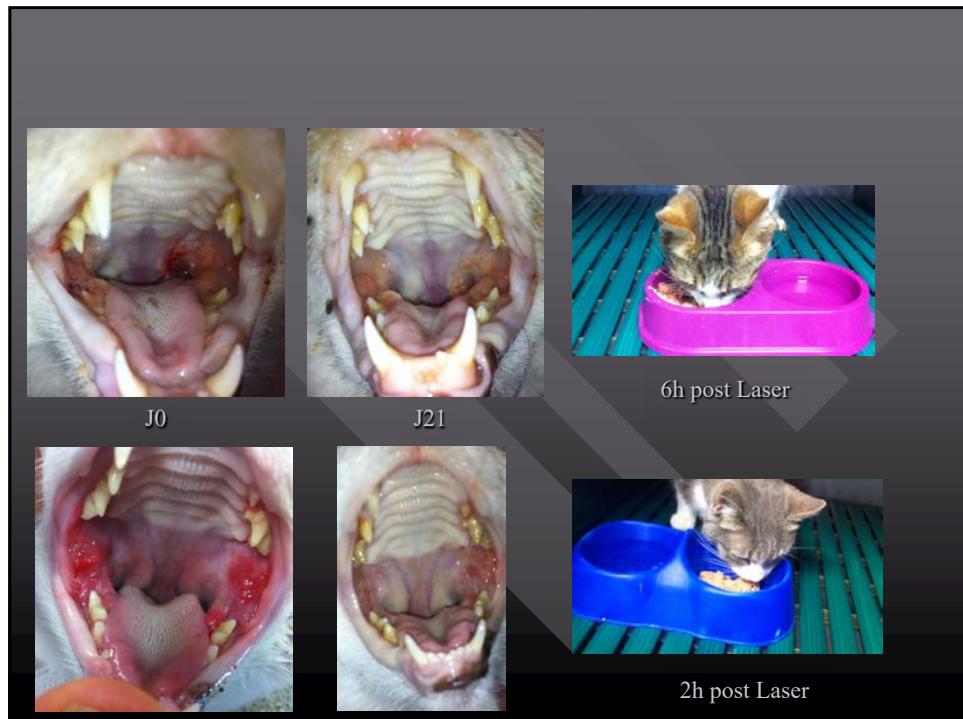
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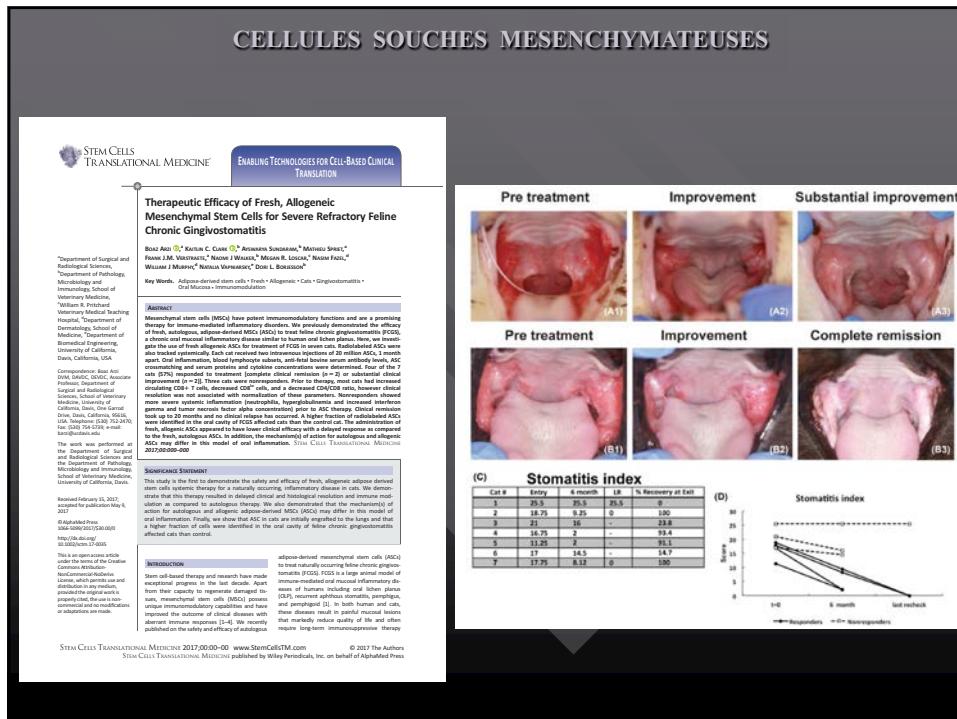
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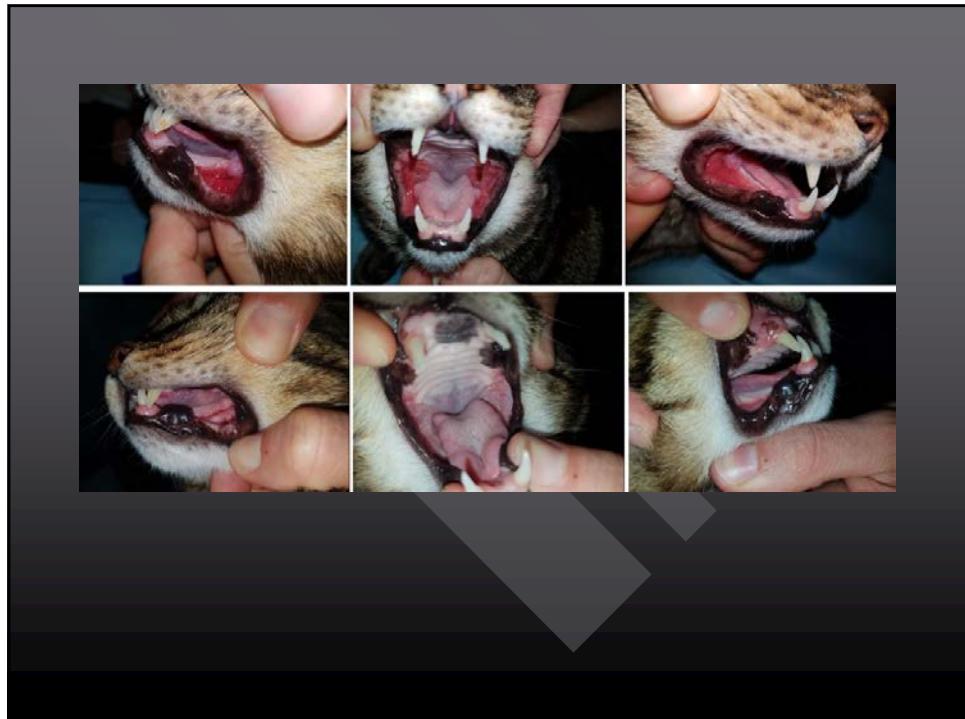
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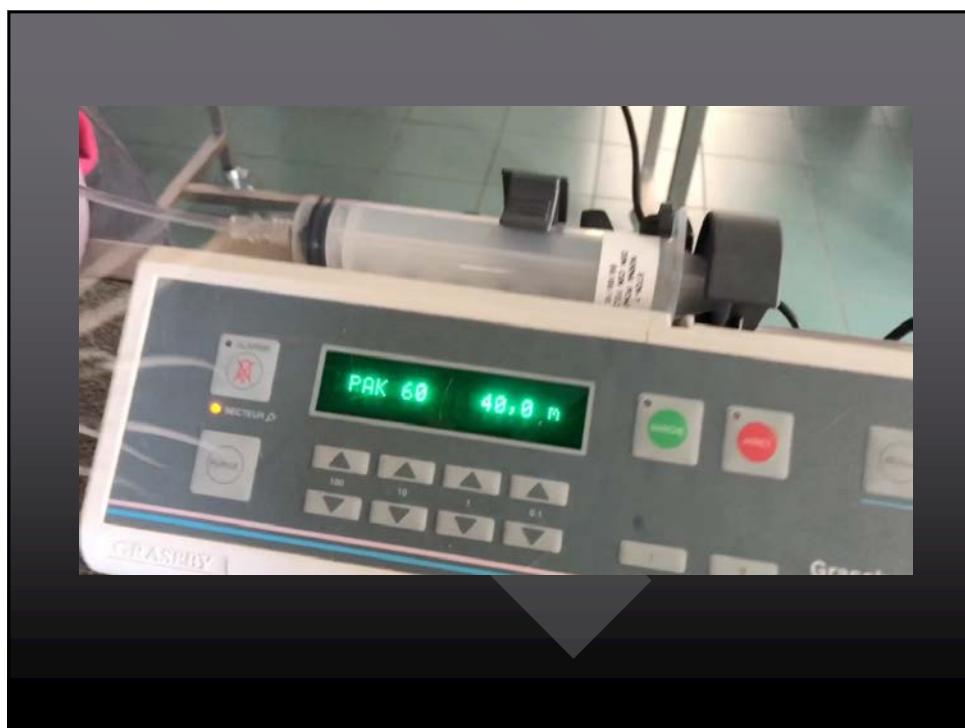
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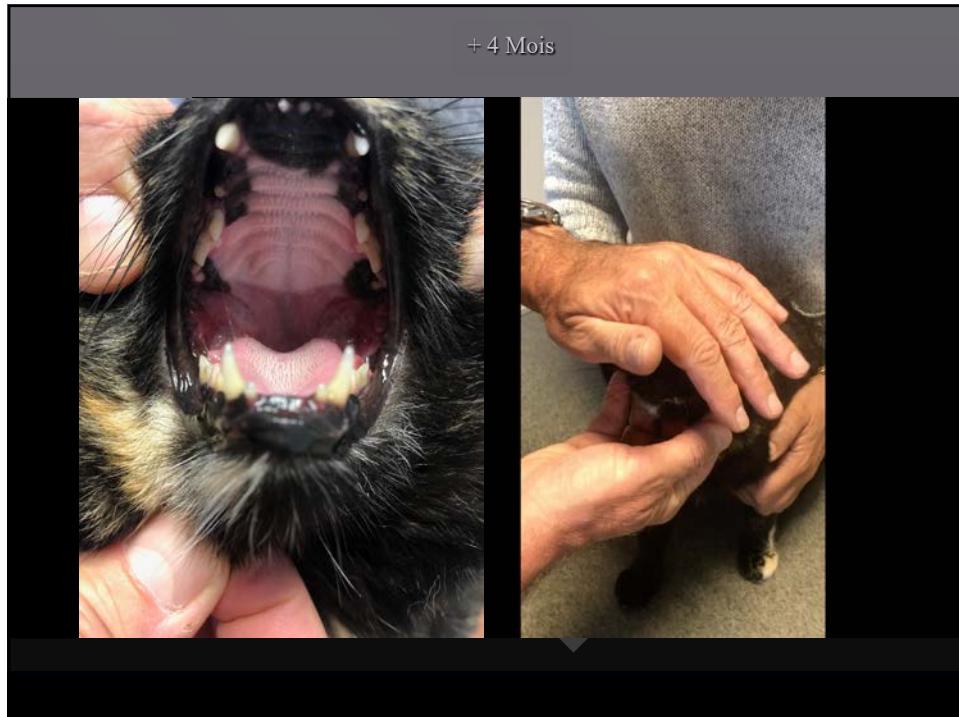
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CGSF

Mesure expression récepteurs cannabinoïdes / immunofluorescence spécifique

Original Article
Expression of cannabinoid and cannabinoid-related receptors in the oral mucosa of healthy cats and cats with chronic gingivostomatitis

Giovanni Polidoro¹, Giorgia Gallozzi², Paola Saccoccia³,
Giovanna Ponzetti-Mazzoni², Maria Kocai¹, Silvia Sestini²,
Antonella Righini² and Roberto Chiochetti²

Abstract
Objective: Feline gingivostomatitis (FGS) is an oral disease. Cats with FGS experience intense and pain-like dental hypersensitivity to contact, the latter based on dental destruction and subsequent mucosal inflammation. It is therefore necessary to investigate alternative therapeutic targets involved in inflammatory disease and pain. The aim of this study was to evaluate the presence of cannabinoid and cannabinoid-related receptors in the oral mucosa of healthy cats and of cats with FGS. Methods: Immunofluorescence was performed on tissue samples taken from the oral mucosa of 10 healthy cats (CTRL) and 10 cats with FGS. Tissue samples were taken from the oral mucosa of the tongue and from the gingiva. Results: CB1 and CB2 receptors were present in the oral mucosa of all the healthy cats and from eight out of ten FGS cats. Tissue samples were processed using an immunofluorescence assay with cell-specific antibodies against CB1, CB2, 5-HT_{1A}, 5-HT_{2A}, TRPA1 and GPR55. In the CTRL group, the receptors studied were mainly expressed around the mucous apertures of the tongue, less intense CB1, TRPA1 and 5-HT_{1A} immunoreactivity (IR) was observed in the gingival mucosa. In the FGS group, the receptors studied were mainly expressed in the gingival mucosa, whereas CB1, CB2, 5-HT_{1A} and 5-HT_{2A} IR was also detected in the tongue mucosa. Conclusion and relevance: Cannabinoid and cannabinoid-related receptors are widely expressed in the oral mucosa of healthy cats and in the oral mucosa of cats with FGS. The presence of these receptors in the oral mucosa of cats with FGS suggests that they may play a role in the pathophysiology of this disease, with a possible role in the related inflammation and pain. Based on the results of this study, it is suggested that the oral mucosa of cats with FGS may be a target for therapeutic interventions, such as the pharmacotherapeutic compounds.

Keywords: CGSF (cannabis-specific glycoprotein); oral mucosa; CB1; CB2; GPR55; TRPA1; 5-HT_{1A}; 5-HT_{2A}

Accepted: 8 October 2020

Introduction
The oral mucosal region (OMR) is an intricate and complex tissue that requires tight regulation of homeostasis. The OMR is composed of oral epithelial cells, connective tissue, blood vessels, nerves, and receptors involved in the surface and deeper layers of the mucosa. These receptors include cannabinoid, cannabinoid-related, 5-hydroxytryptamine (5-HT), and G-protein-coupled receptors, such as the phorbol esteractivated compound.

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(a)

(b)

(c)

Récepteurs	Chats sains	Chats CGSF
CB1	++	+++
CB2	+/-	+++
TRPA	++	++
5-HT	++	
GPR55	+/-	+++

Polidoro G et al. Expression of cannabinoid and cannabinoid-related receptors in the oral mucosa of healthy cats and cats with chronic gingivostomatitis. Journal of Feline Medicine and Surgery 2020

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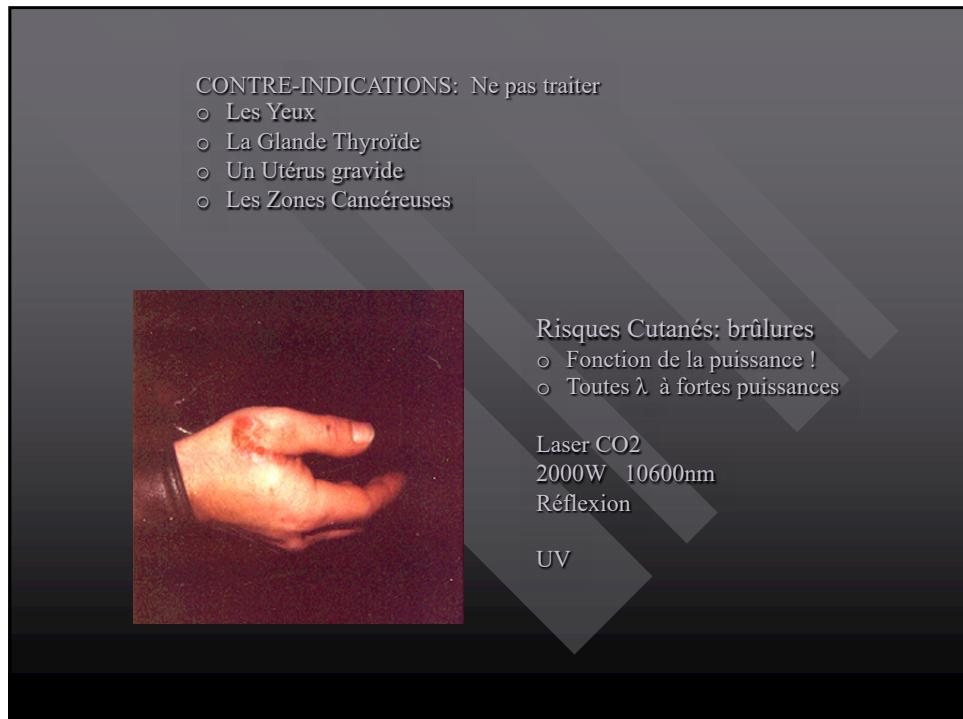
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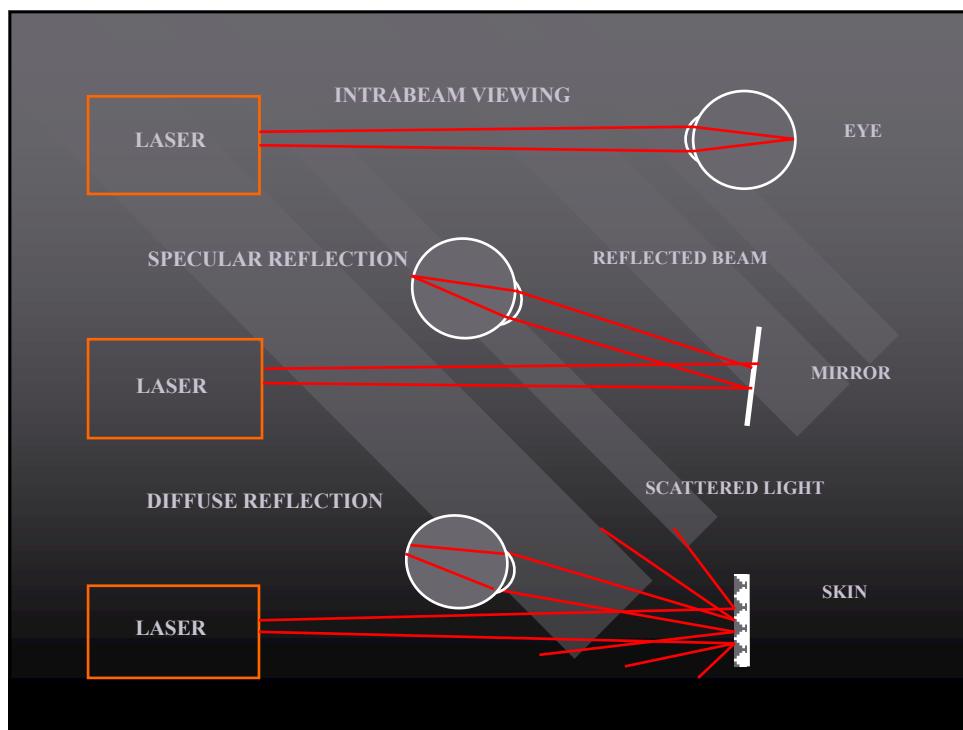
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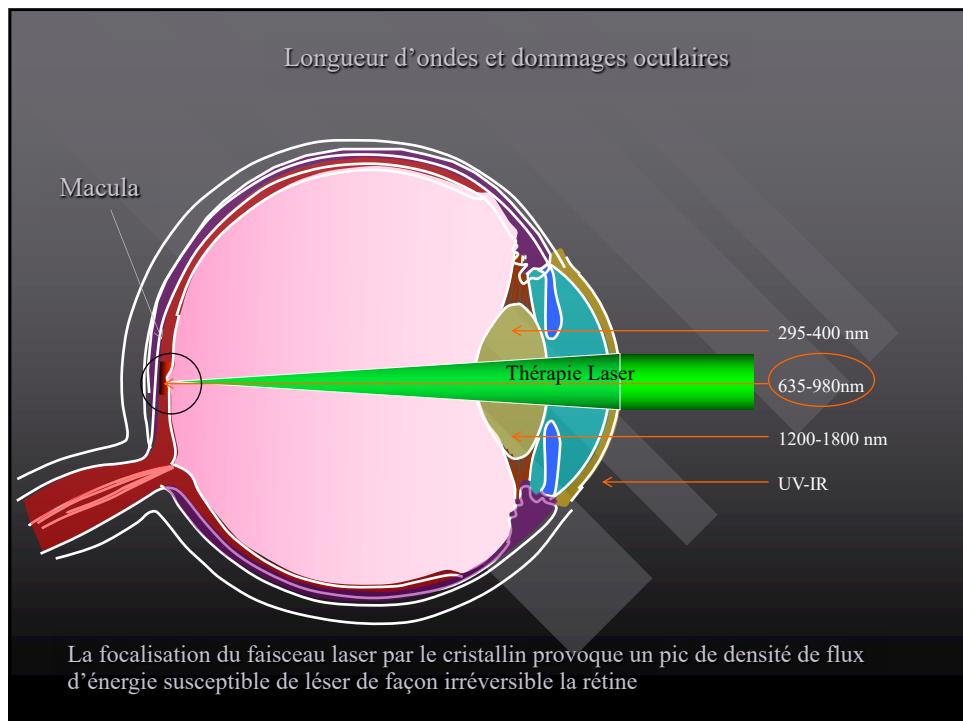
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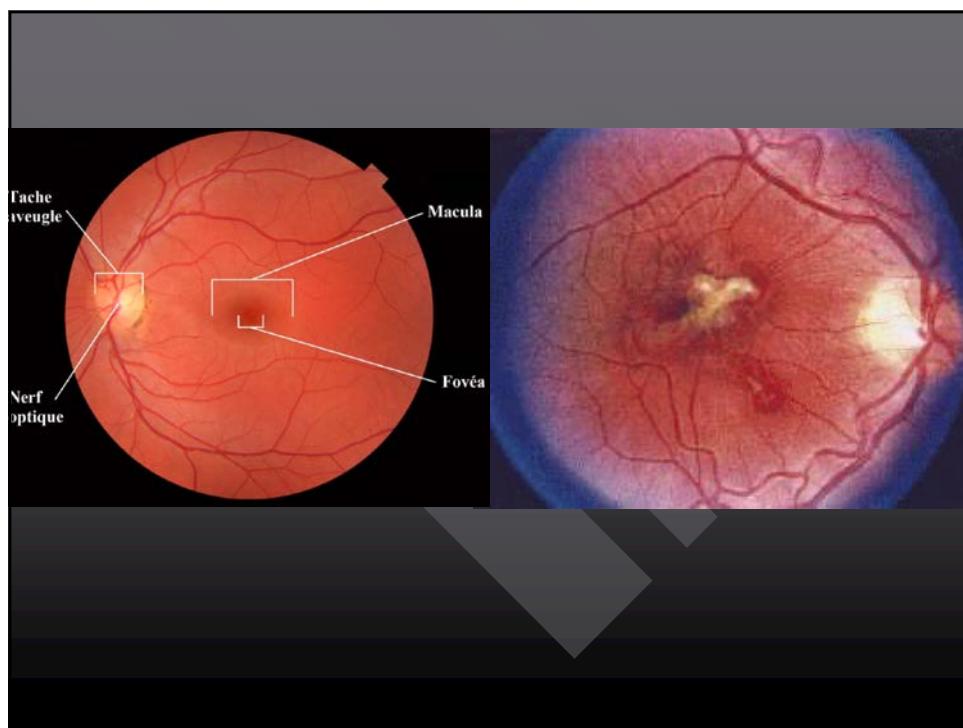
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○ DNRO : Distance Nominale de Risque Oculaire = 1,65 m
 ○ EMP: Niveau d'exposition maximale permisable
 ○ ZDN: Zone de danger nominal > EMP = 6 m

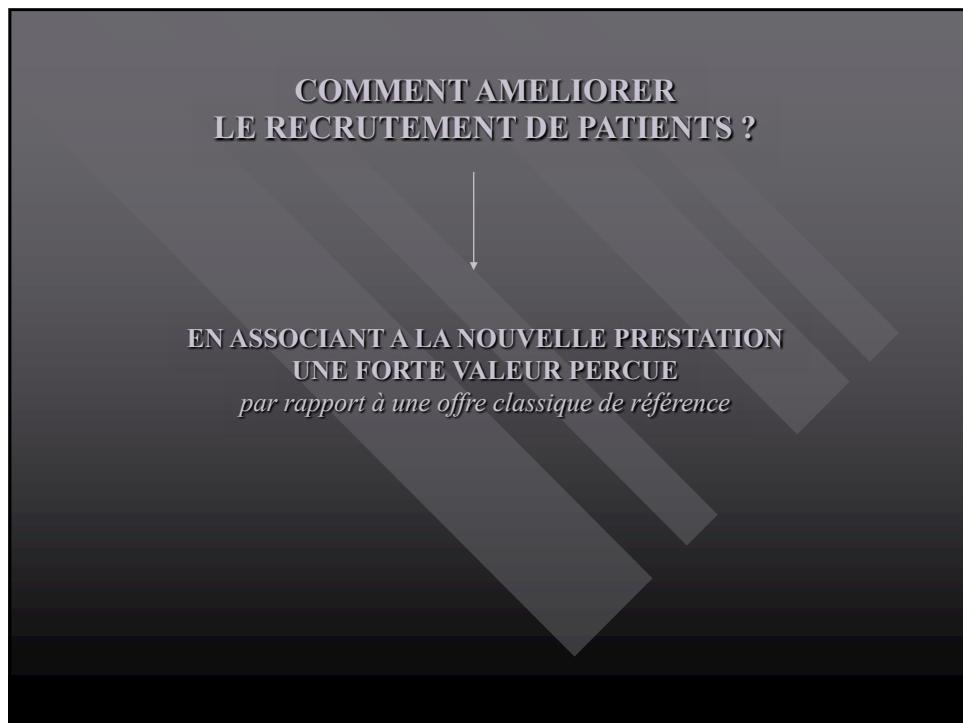
MARQUAGES NORMALISÉS

λ : Longueurs d'ondes de filtration.
D (Laser continu), **IR** (Laser impulsionnel).
L_n: Numéro d'échelon de protection.
CE: Marque de certification européenne.

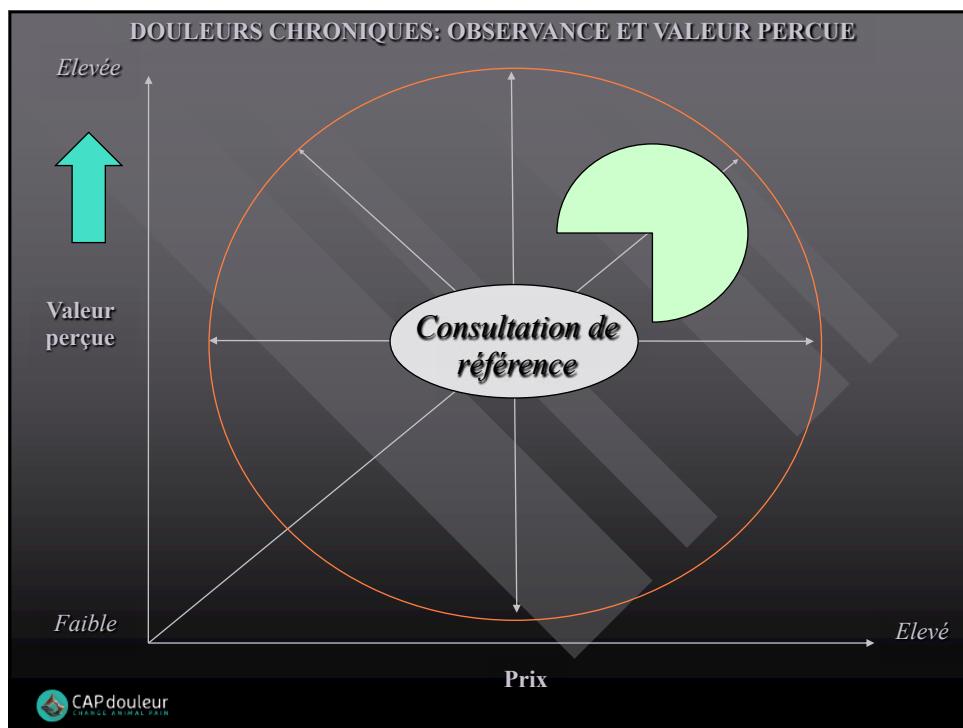
Exemple de marquages : $\lambda = 950 \text{ nm à } 2200 \text{ nm}$, D, L5, CE

Les protecteurs oculaires doivent être conformes aux normes EN 207 ou EN 208 et avoir un coefficient de transmission dans le visible (V.L.T) supérieur à 20%.

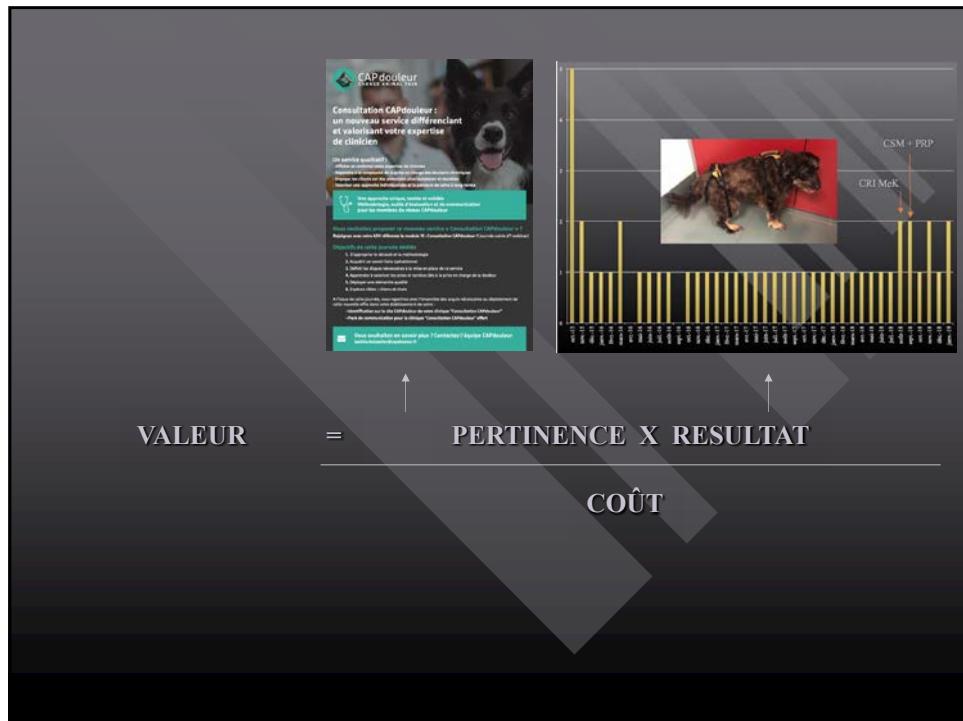
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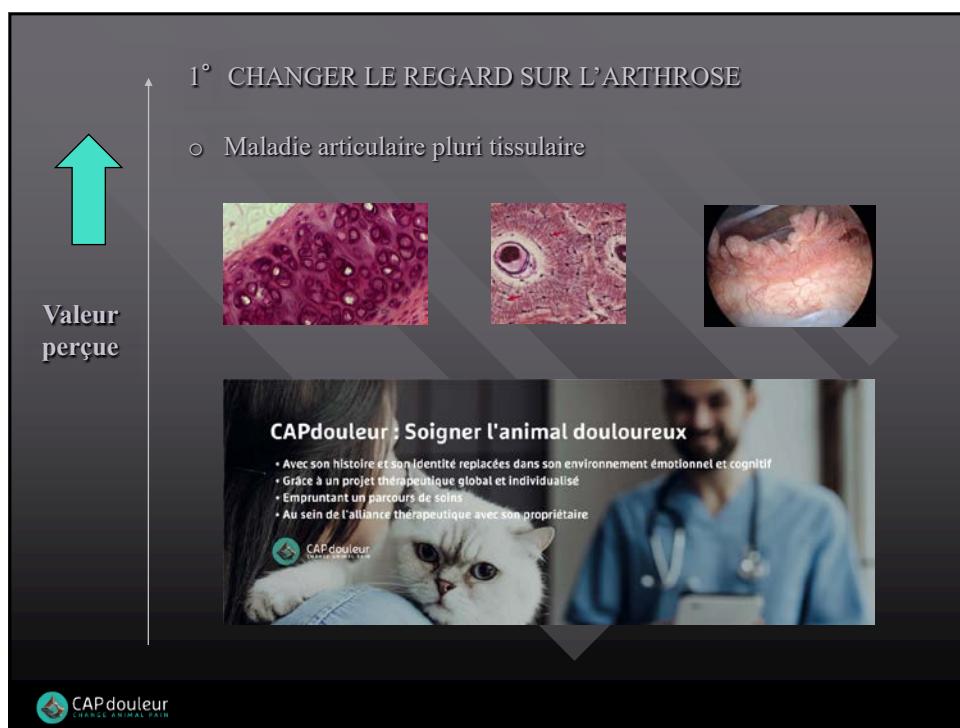
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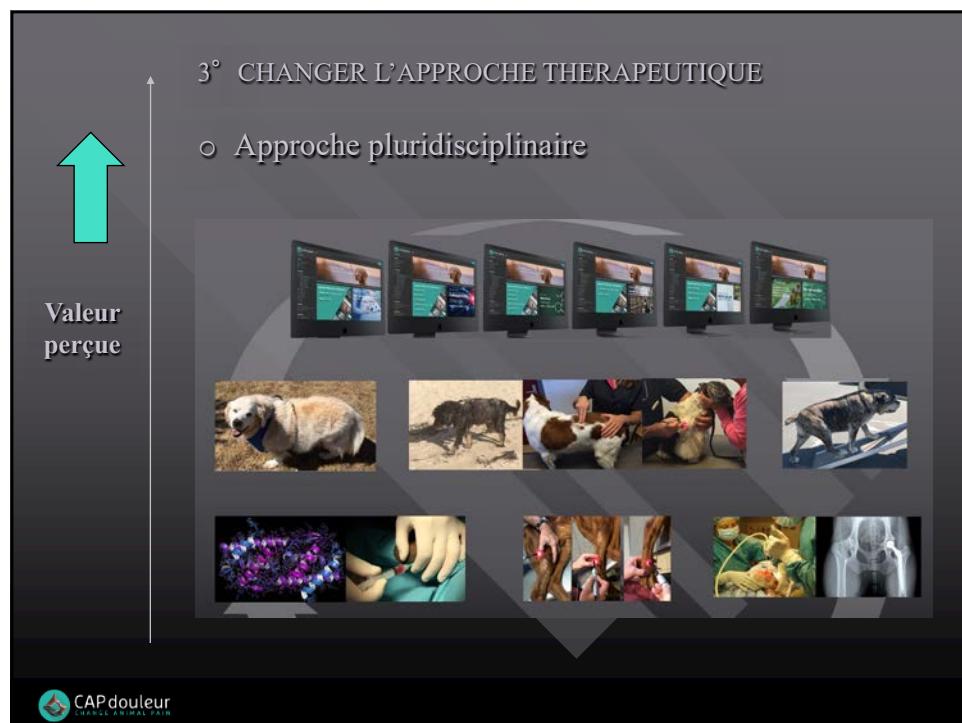
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↑
Valeur perçue

3° CHANGER L'APPROCHE THERAPEUTIQUE

- Pertinence des innovations: Physiothérapie
 - ✓ Laser
 - = Amplificateur de lumière
 - ✓ Antalgique
 - ✓ Anti-inflammatoire
 - ✓ Cicatrisant
 - ✓ ↑ O₂ - ↑ ATP




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↑
Valeur perçue

3° CHANGER L'APPROCHE THERAPEUTIQUE

- Synergie des innovations





CAPdouleur
CHARGE ANIMAL PAIN

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↑
Valeur perçue

4° CHANGER L'APPROCHE CLINIQUE

- Nouveau cadre de la Consultation Douleur


CAPdouleur
 CHANGE ANIMAL PAIN

LA CONSULTATION CAPDOULEUR :

Adaptée à de nombreux patients

- Douleurs arthrosiques et handicaps fonctionnels persistants
- Troubles du comportement en relation avec un mal-être
- Douleurs chroniques post-opératoires et difficultés de récupération
- Douleurs cancéreuses
- Comorbidités douloureuses de l'animal senior
- Soins palliatifs
- Situations douloureuses d'impasse thérapeutique et d'errance médicale



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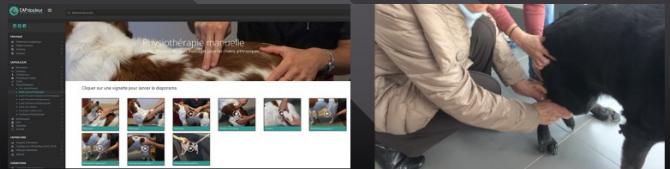
↑
Valeur perçue

5° CHANGER LE REGARD SUR LE PROPRIÉTAIRE

S'appuyant sur une méthode originale

- Ecoute réflexive
- Empathie
- Feedback
- Education thérapeutique
- Créneau horaire dédié

} **Alliance thérapeutique**

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Supportée par des outils uniques

- Dolodog/Dolocat/Dolorabbit/CSOM
- Pack de communication pour la clinique



Dolodog/Dolocat/Dolorabbit/CSOM







CONSULTATION CAPdouleur : SOIGNEZ L'ANIMAL DOULOUREUX

La consultation CAPdouleur :

- Douleurs articulaires et tendineuses
- Douleurs musculaires
- Troubles du comportement et mal-être
- Problèmes d'urination et d'écoulement
- Douleurs dentaires
- Douleurs mastoïdériques
- Maladie de l'oreille
- Situations d'urgence thérapeutique
- Suivi palliatif

Pour en savoir plus, partez vers la page **soignez**.

UN OBJECTIF PARTAGÉ : LUI REDONNER SA QUALITÉ DE VIE GRÂCE À :

- Des pratiques évaluatives innovantes
- Le respect de l'animal et de son maître
- La complémentarité des médicaments et des méthodes non pharmaco-analgésiques
- Une collaboration active entre l'équipe soignante et vous
- Un suivi régulier et motivant



Consultation CAPdouleur : soignons l'animal dououreux

Des douleurs peuvent altérer le confort et la qualité de vie de votre animal.

Que votre animal soit jeune, adulte ou senior, que ces troubles soient physiques ou qu'il manifeste un mal-être, que ses signes de douleurs soient récents ou persistants, ou que vous ayez déjà essayé plusieurs voies de soulagement sans amélioration,

nous pouvons vous aider.



Son bien-être est toujours une question que l'on se pose souvent parce que nous l'aimons et parce que nous le respectons.

Dans la mesure où votre chat devra faire dans un environnement et sur vous lui accorder affection et attention qu'il est en droit d'attendre, il a toutes les chances d'être heureux.

Mais il est aussi important d'être toujours en veille sur sa maitrise et ses comportements. C'est pourquoi nous avons mis à disposition des douzaines d'images et d'articles qui vous aideront à mieux connaître vos chats et à leur offrir les meilleures conditions de vie.

En effet, cette surveillance participe à préserver son bien-être et permet à l'animal de bénéficier d'un traitement adapté si nécessaire et donc, de ne pas souffrir ou de ne pas être dans un état de mal-être ou de pathologie.

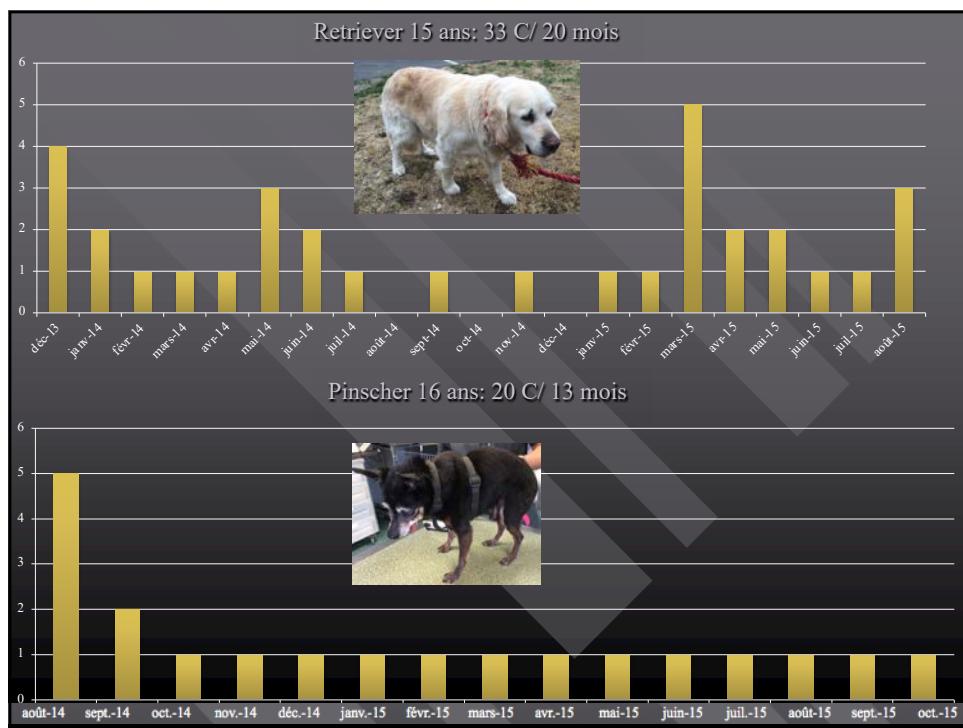
Comme c'est le cas chez l'homme, un bon état de santé conditionne la qualité de vie du chat.

Membre du Réseau CAPMedecin, votre clinique est engagée dans le prévention et le traitement de la douleur animale. Soyez sur tout son organe.

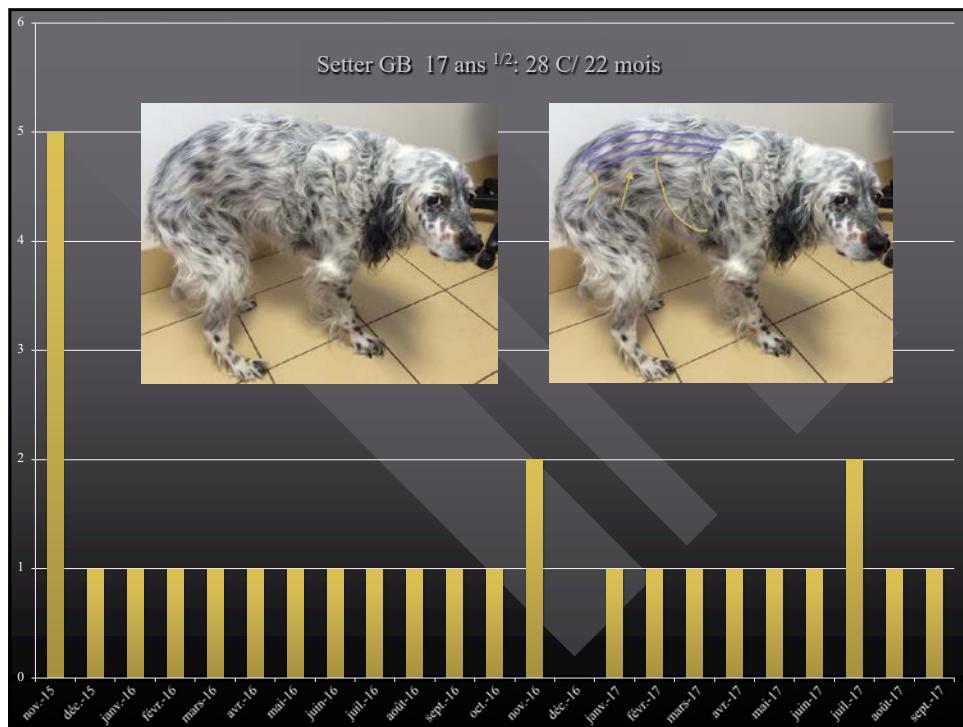
Ainsi dans le cadre de notre pratique clinique, nous faisons tout pour éviter que la douleur ne se manifeste ou même qu'elle ne se déclare davantage.

Nous avons besoin de vous, car nous connaissons votre animal mieux que quiconque et nous savons la personne la plus habilitée à affronter les changements d'état et l'impromptu de votre animal.

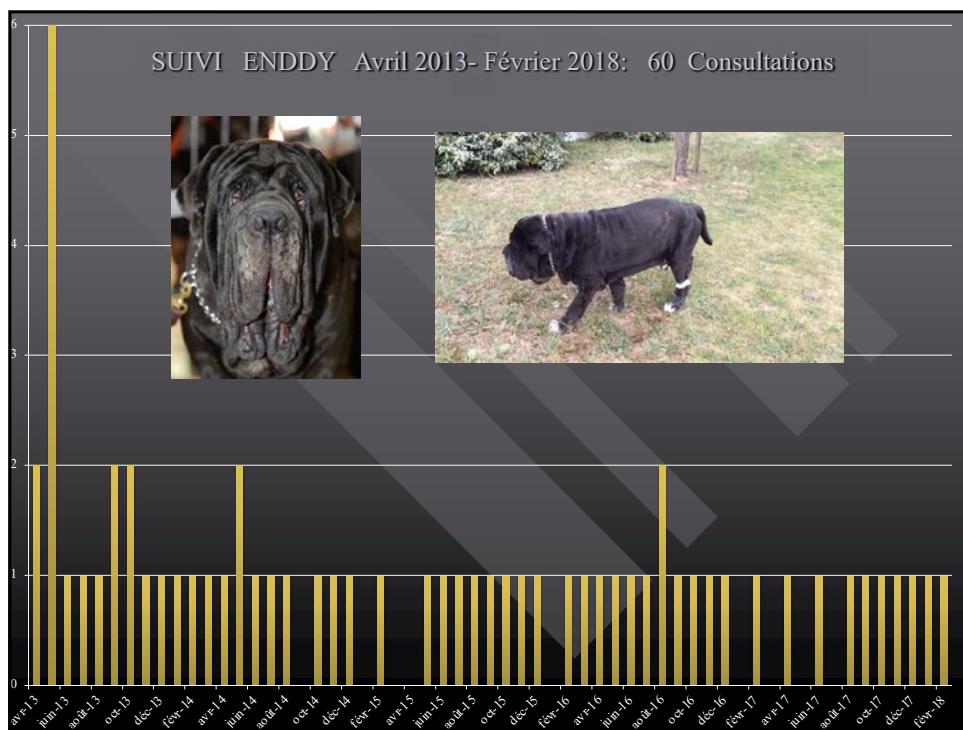
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