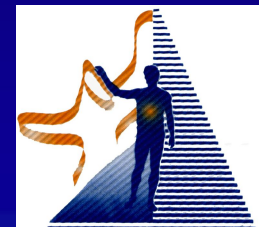


LOMBALGIE : ETAT de l' ART

JM VITAL

Unité de Pathologie Rachidienne Tripode

BORDEAUX



LOMBALGIE COMMUNE

LOMBALGIE CHRONIQUE

> 3 MOIS (SFR)

> 6 SEMAINES (QUEBEC TASK FORCE)

LOMBALGIE SECONDAIRE



QUELQUES RAPPELS et DEFINITIONS



PREVALENCE ANNUELLE : 35 à 50%

PREVALENCE VIE ENTIERE : 60%

LOMBALGIE CHRONIQUE

7 à 10% des LOMBALGIES

70 à 80% des COUTS



COÛT

9% des CONSULTATIONS en MEDECINE

8% des ACTES DIAGNOSTIQUES

30% des ACTES de KINESITHERAPIE

**Première cause d' A.T. et d' INVALIDITE
avant 45 ans**



FACTEURS de CHRONICISATION

PERSONNELS : tabac , autres douleurs chr.

PROFESSIONNELS : {insatisfaction au travail
A.T. , litiges

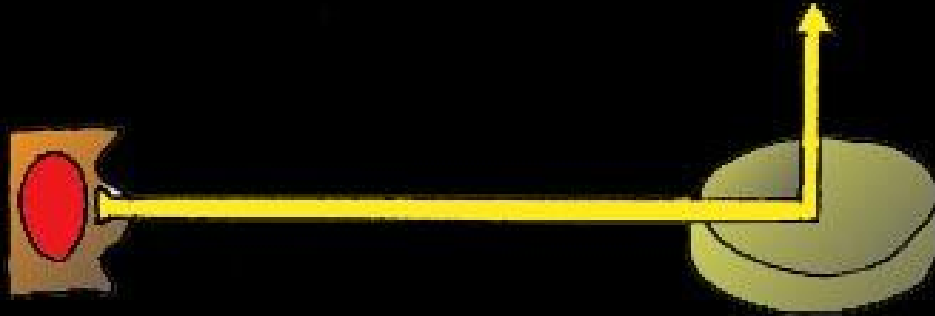
SOCIOEDUCATIFS : {bas niveau scolaire
bas niveau de ressource
faible activité physique

PSYCHOLOGIQUES : dépression X 2 à 5

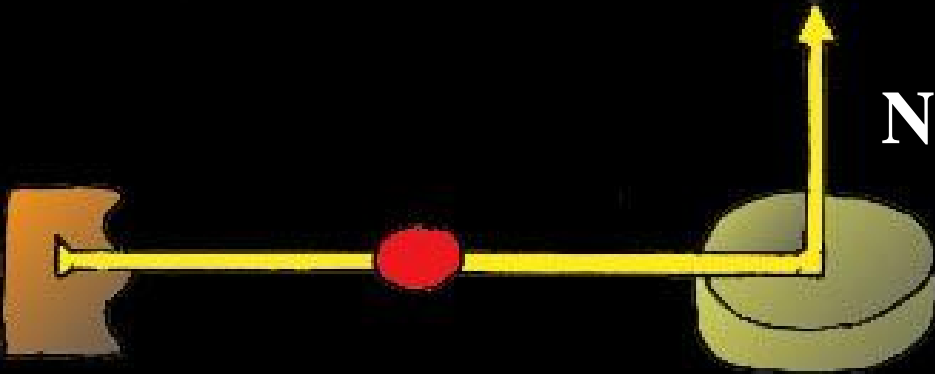
D' OU VIENT LA LOMBALGIE ?



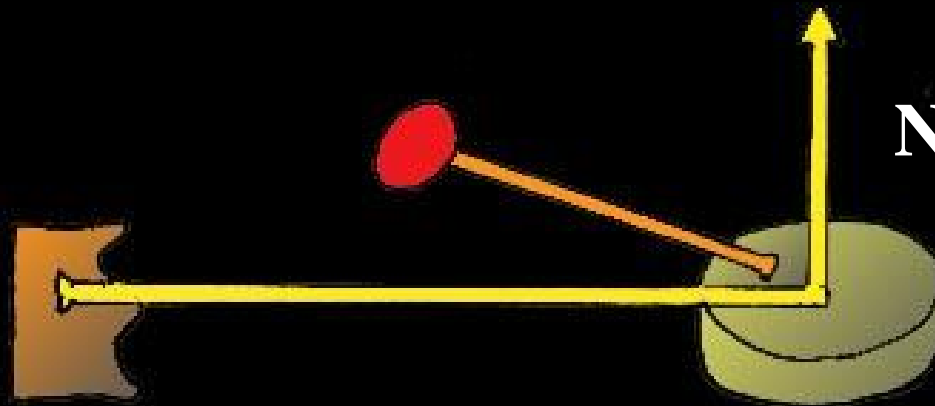
4 TYPES DE DOULEUR



NOCICEPTIVE



NEUROGENE -RAPPORTEE



NEUROGENE -REFEREE

PSYCHOGENE

DOULEUR NEUROGENE RAPPORTEE



QUEUE de CHEVAL

NERF RACHIDIEN

T12-L1



L1-L2



L4-L5



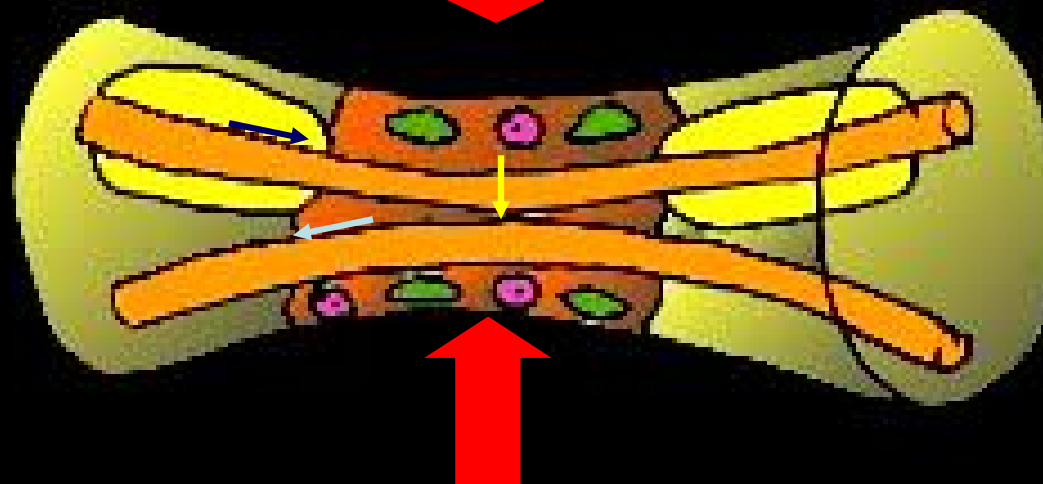
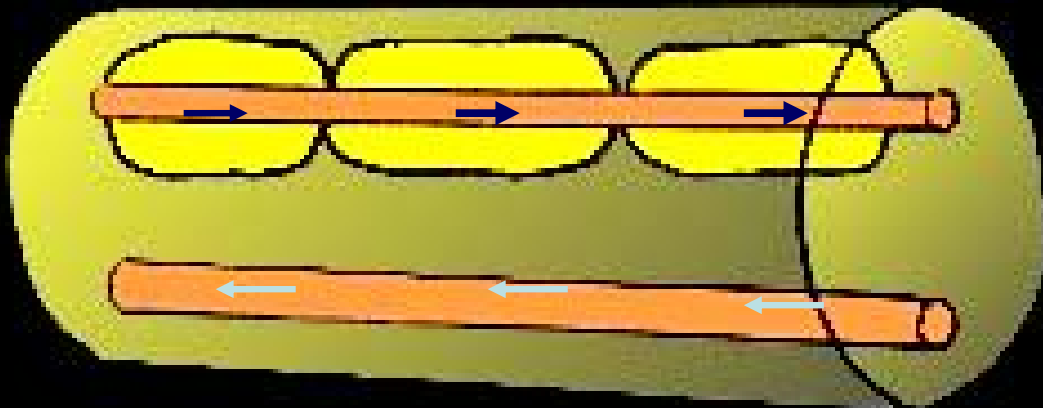
L5-S1



C



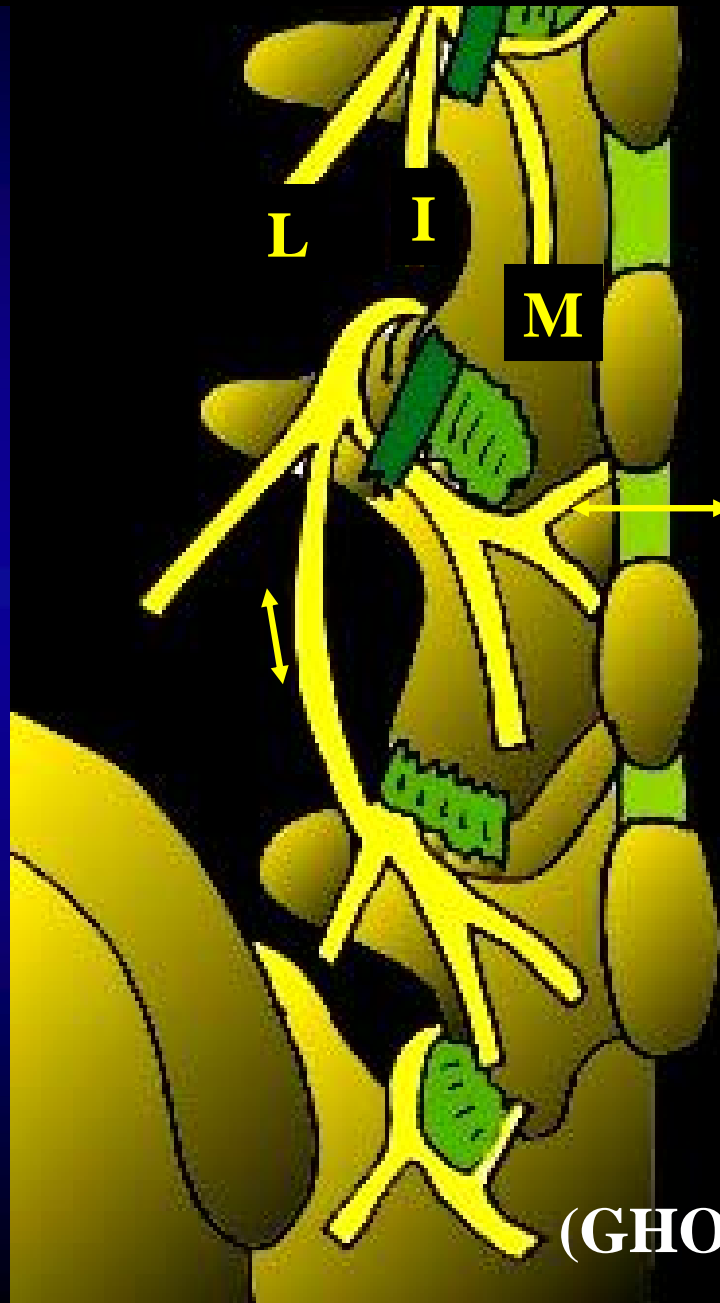
DECOMPRESSION CHIRURGICALE



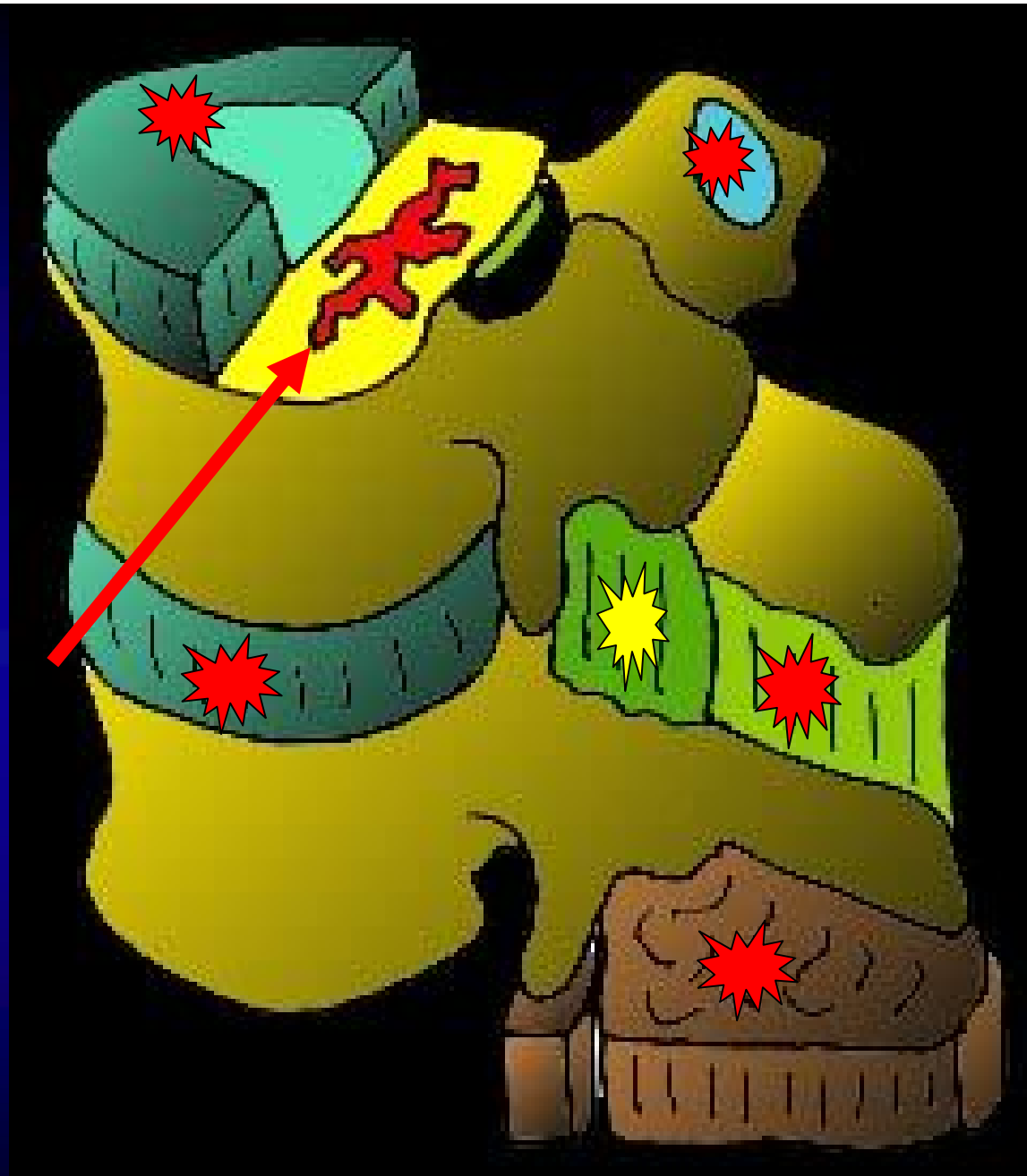
DOULEUR NEUROGENE REFEREE

N. RACHIDIEN POST.

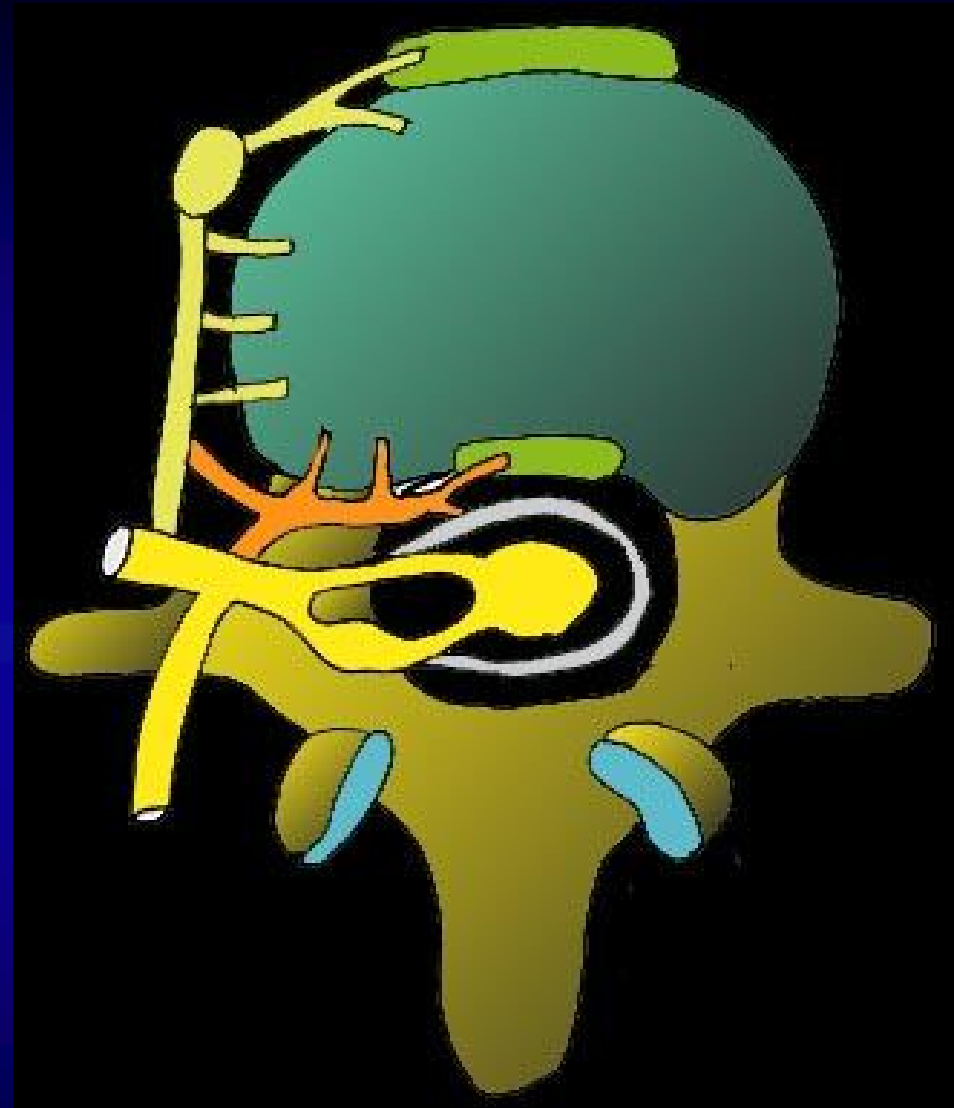
(BROGDUK)



(GHORMLEY , 1933)

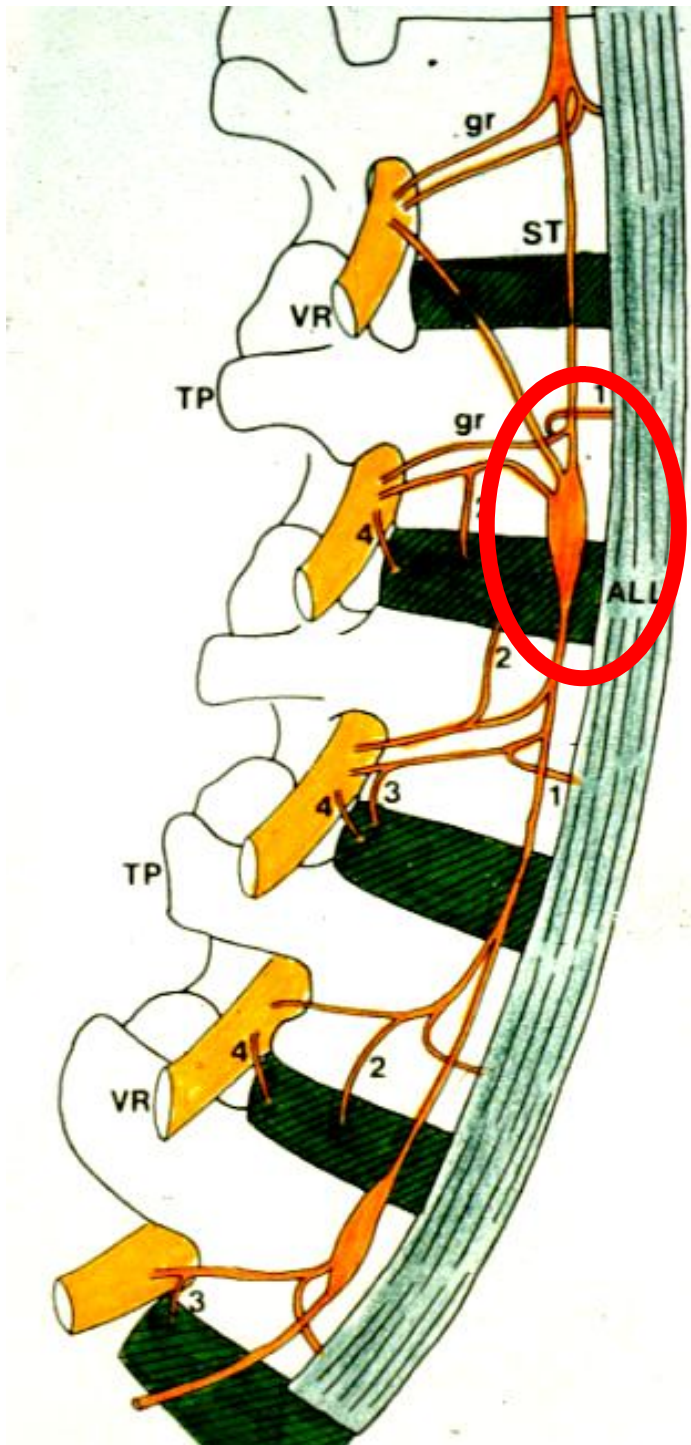


DOULEUR NOCICEPTIVE



N. SINU - VERTEBRAL

S. VEGETATIF



GANGLION SYMPATHIQUE L2

NAKAMURA (1996) , ROBERT (2000)

DOULEUR PSYCHOGENE



4

LIEU de CONTRÔLE INTERNE : REACTIVITE
LIEU de CONTRÔLE EXTERNE : CHRONICITE

POLYENTHESOPATHIE-FIBROMYALGIE

POLYENTHESOPATHIE-FIBROMYALGIE

DOULEURS DIFFUSES et VARIABLES

EXPRESSION CLINIQUE EXAGEREE

ECHEC des TRAITEMENTS CLASSIQUES

TROUBLES du SOMMEIL , de l' ATTENTION

FATIGUE GENERALE

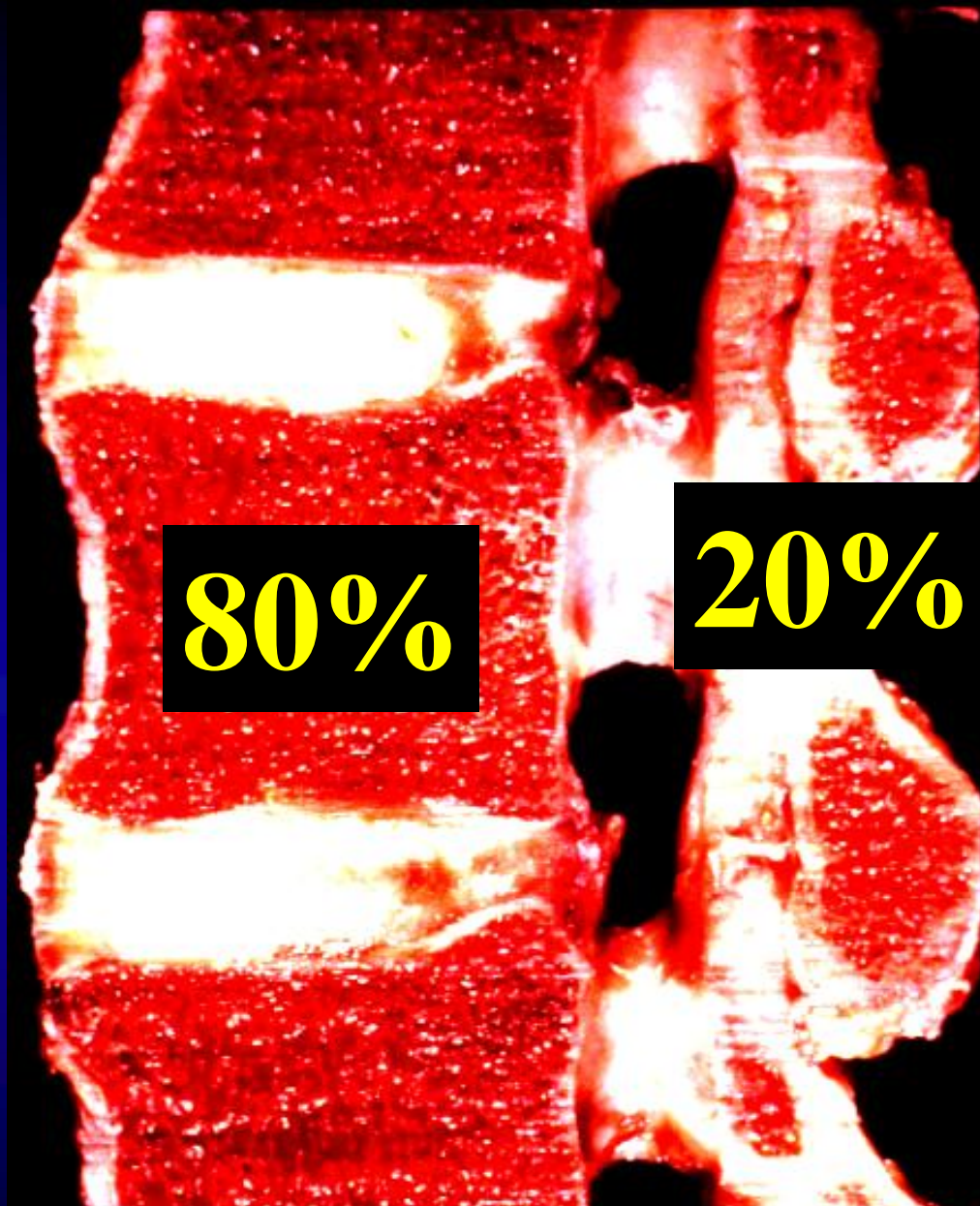
PALPITATIONS , TROUBLES VASOMOTEURS

2/3 , SECRETION CATECHOLAMINE ↗



QUELQUES NOTIONS de BIOMECHANIQUE

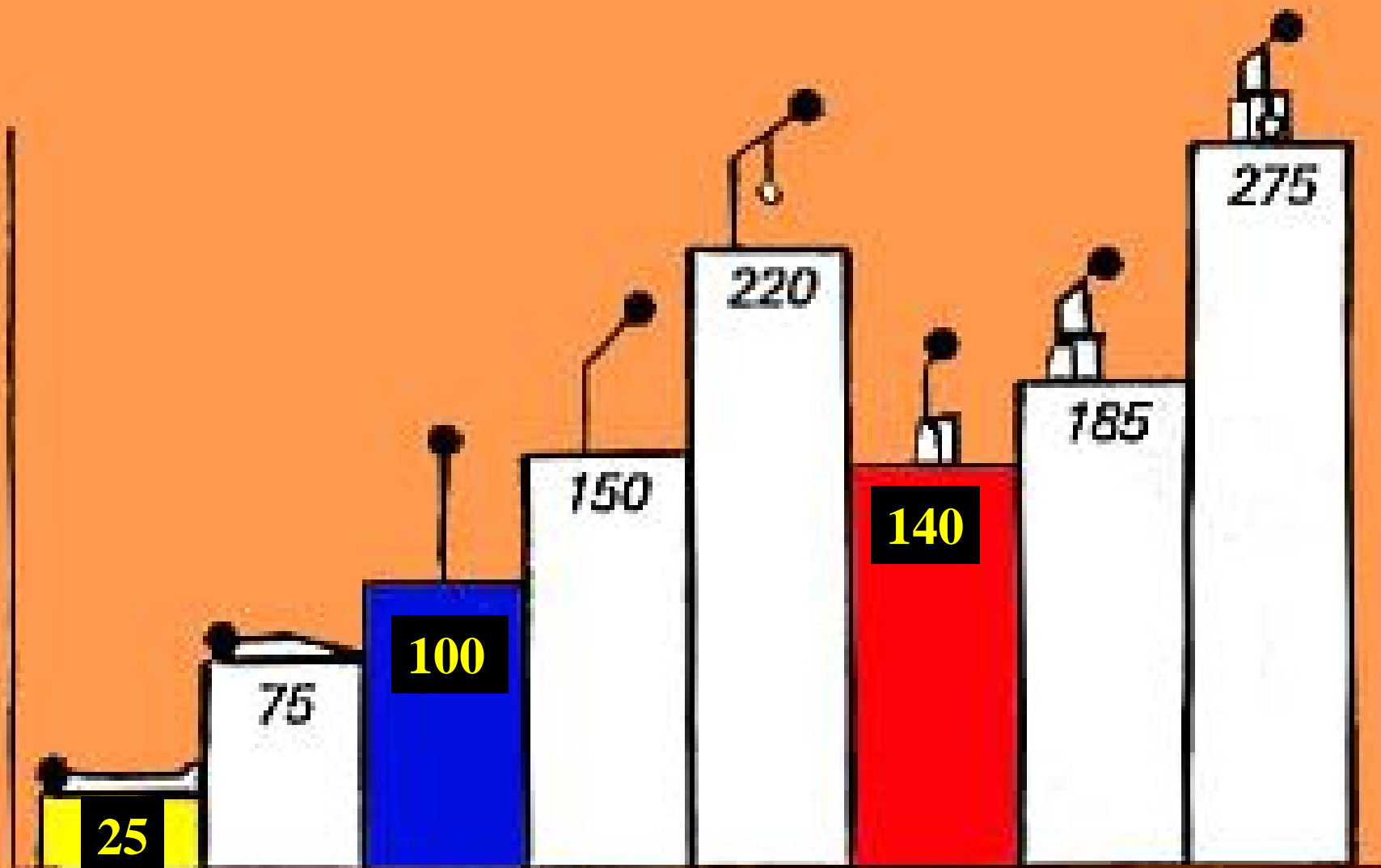




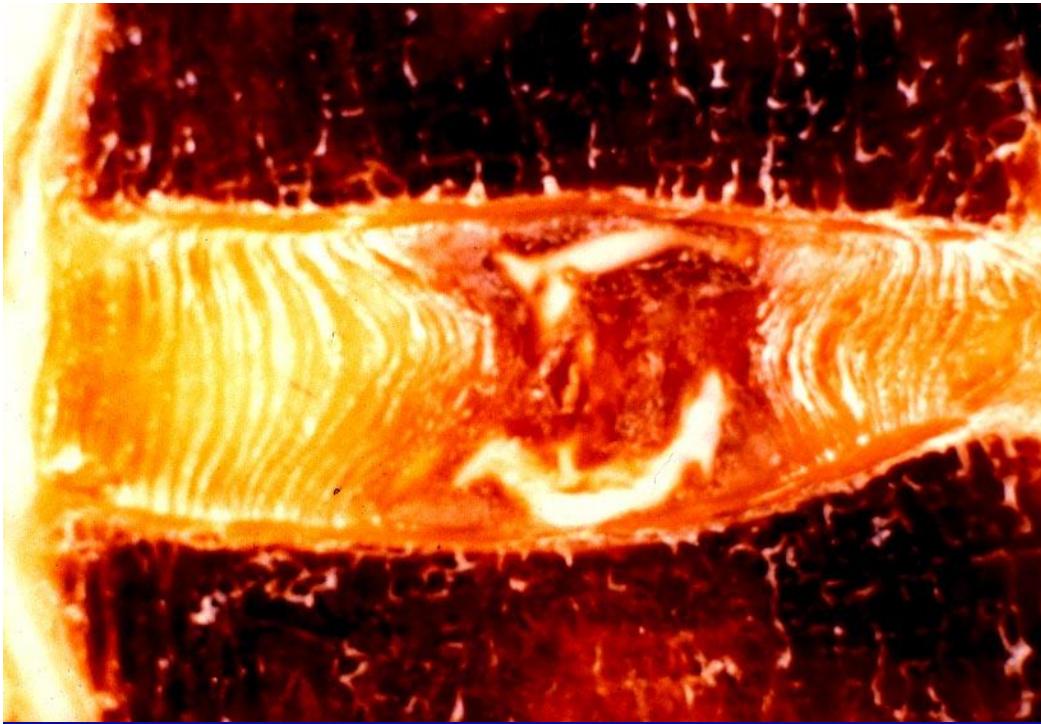
80%

20%

AMORTISSEUR

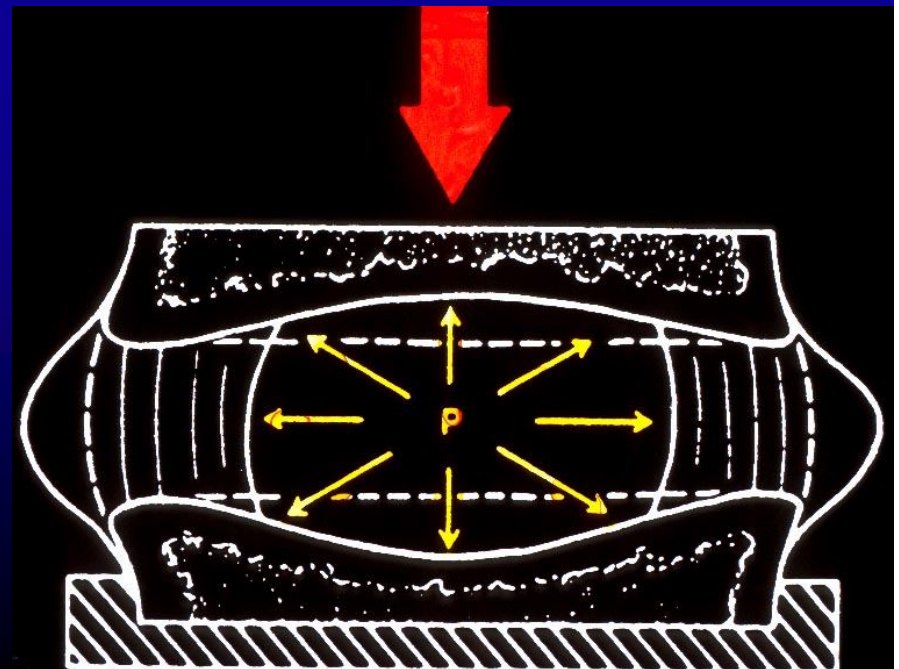


NACHEMSON (1966)



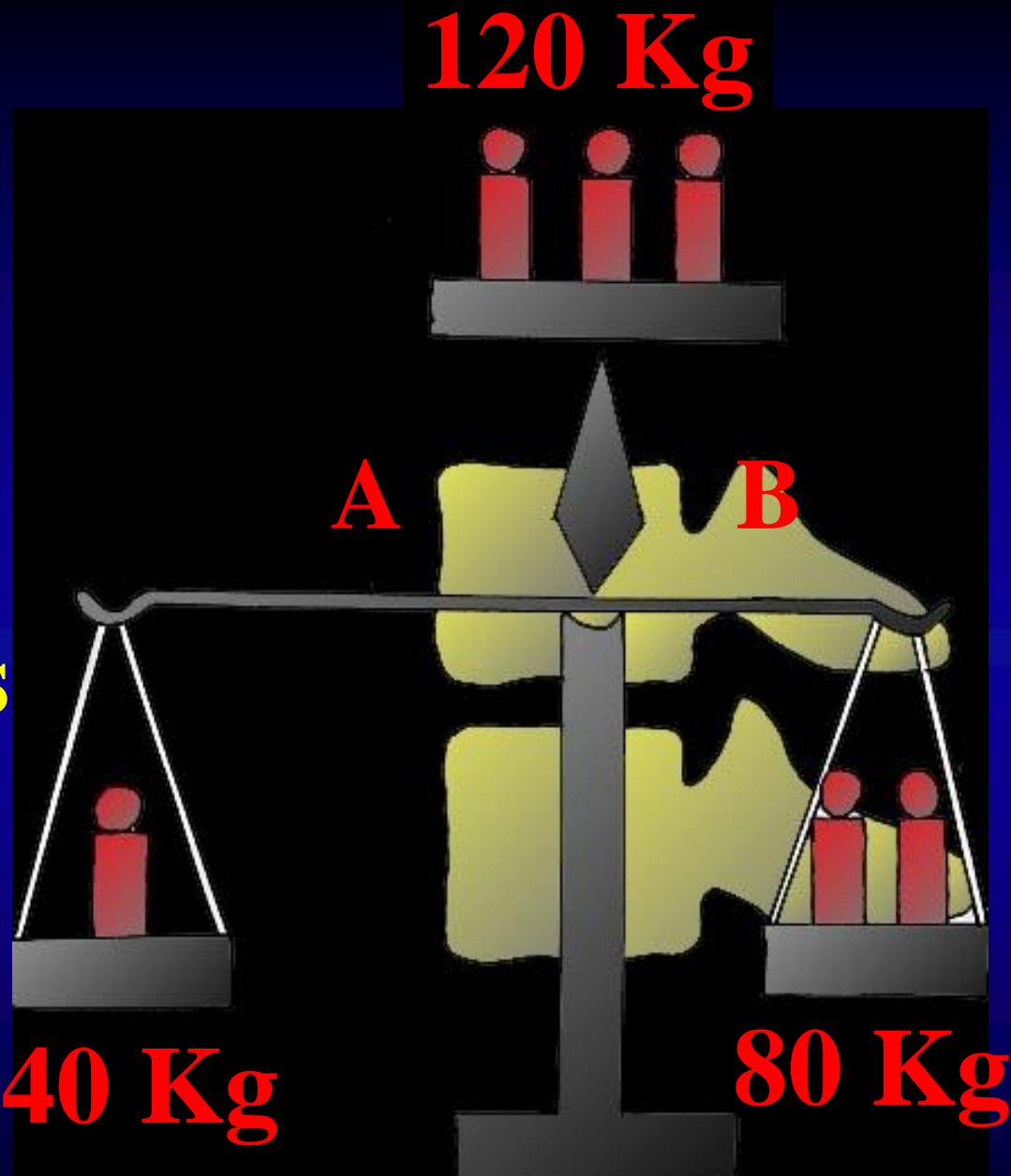
**PLATEAUX VERTEBRAUX
OS SOUS-CHONDRALE**

**COMPLEXE
DISCO EPIPHYSAIRE**

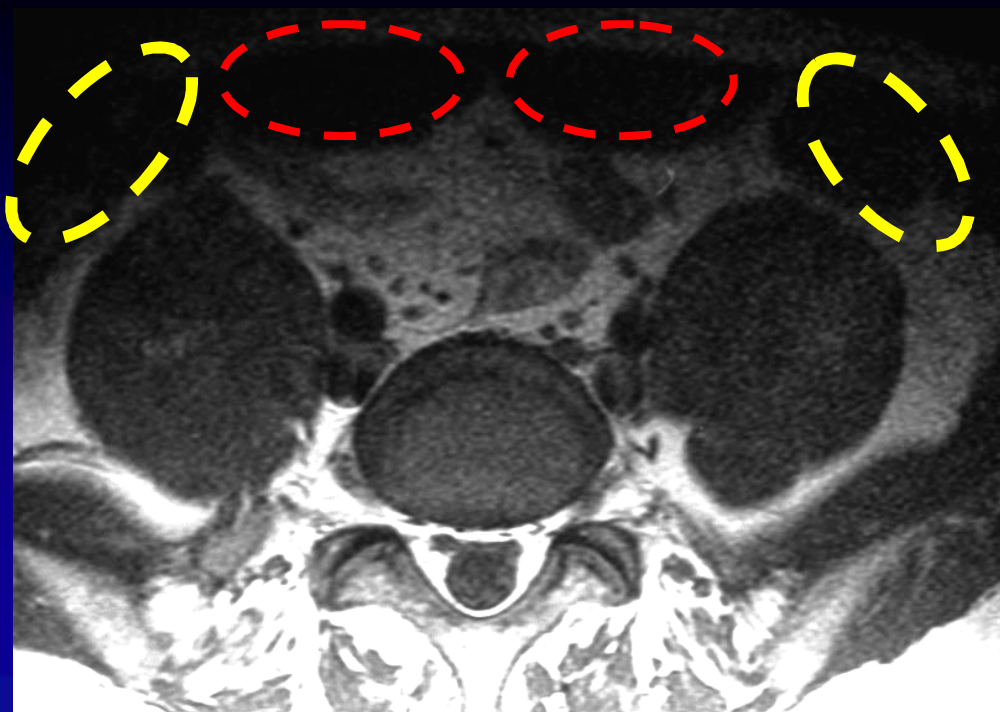




MUSCLES

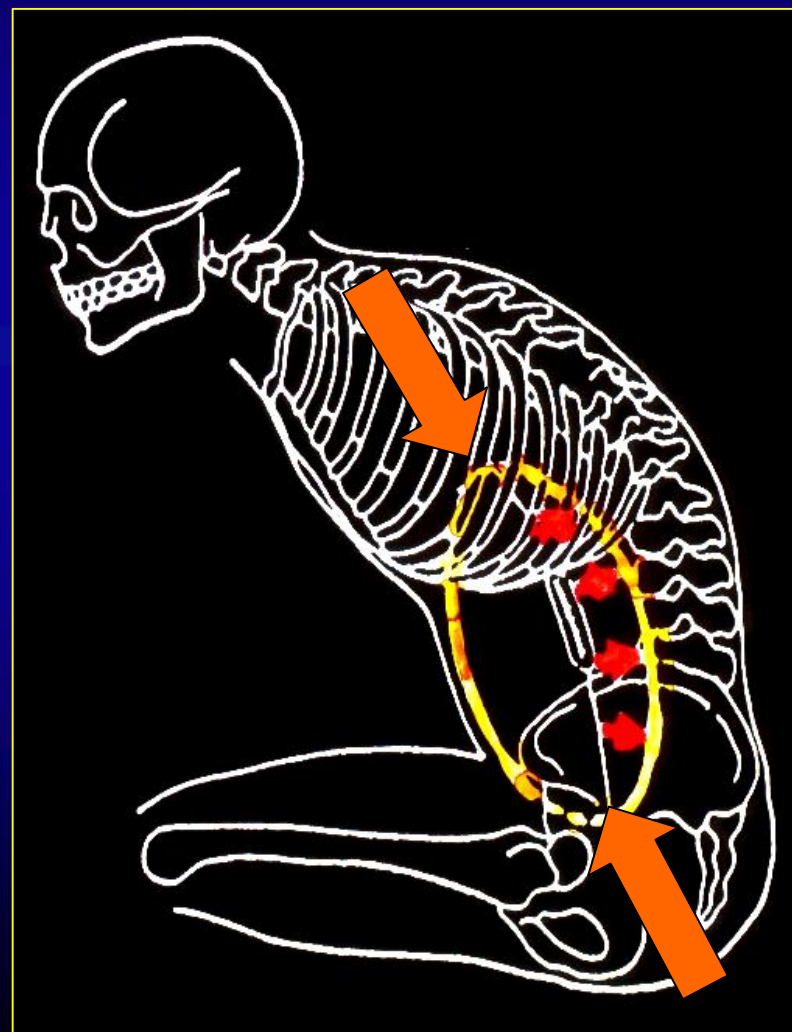


BALANCE RACHIDIENNE



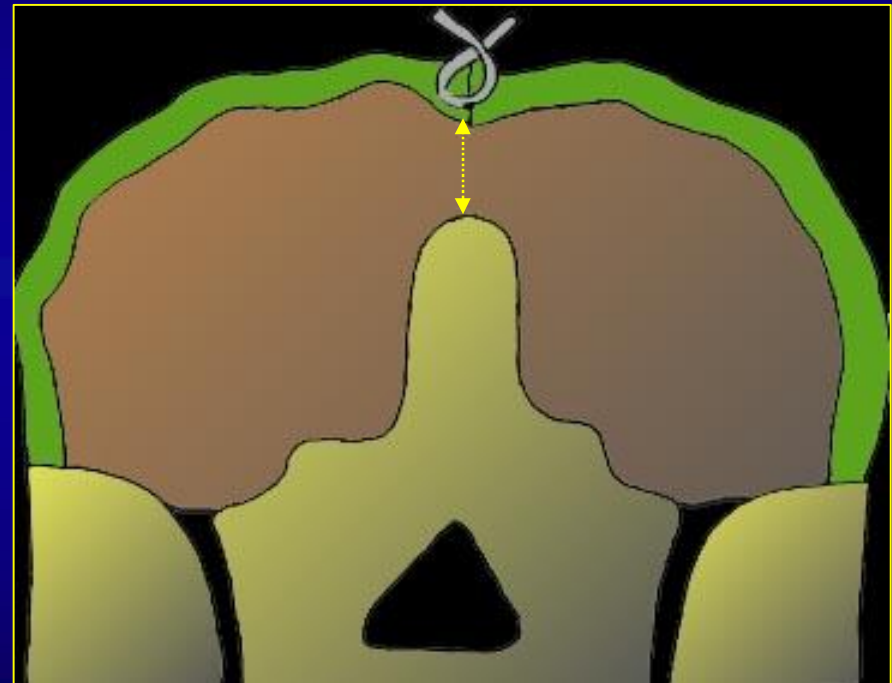
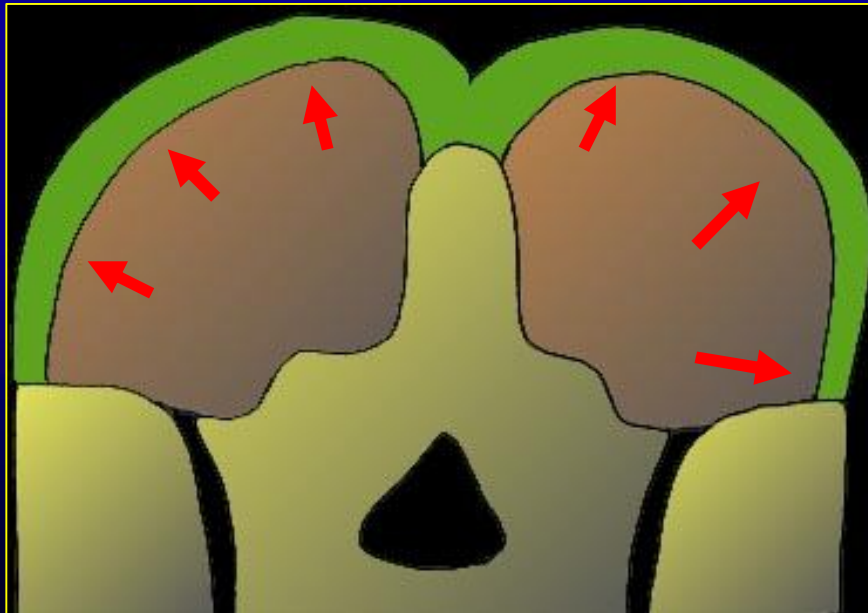
CONTENTION PNEUMATIQUE

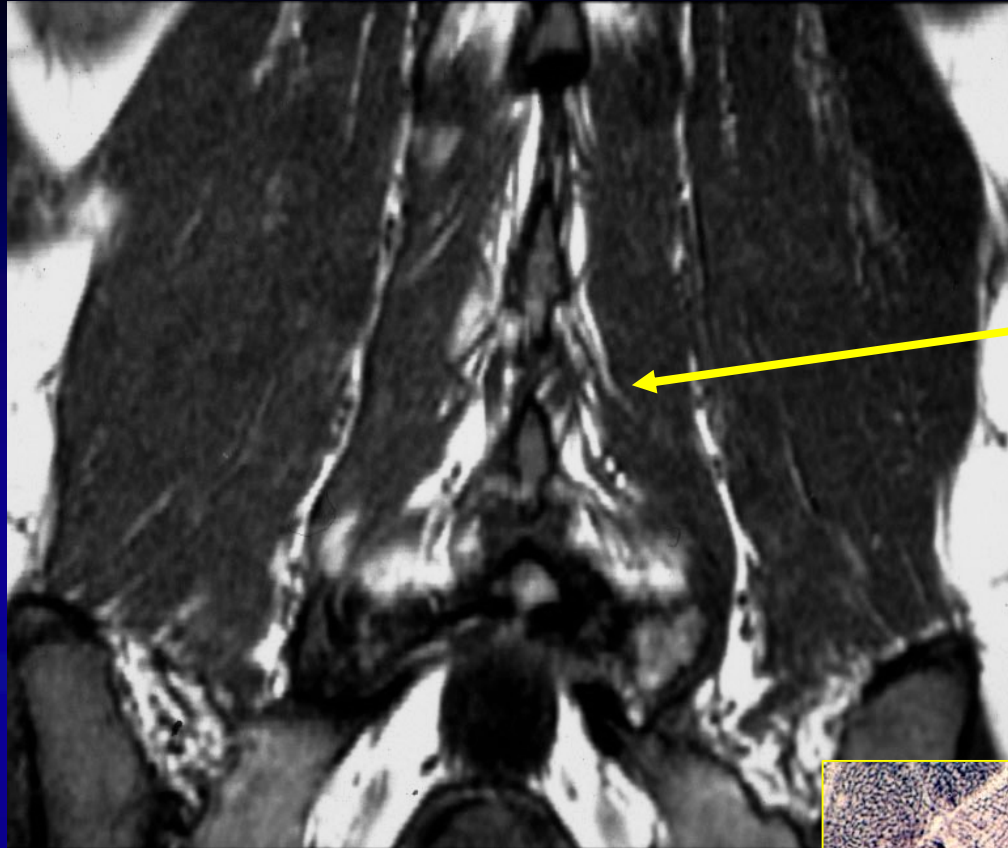
ANTERIEURE



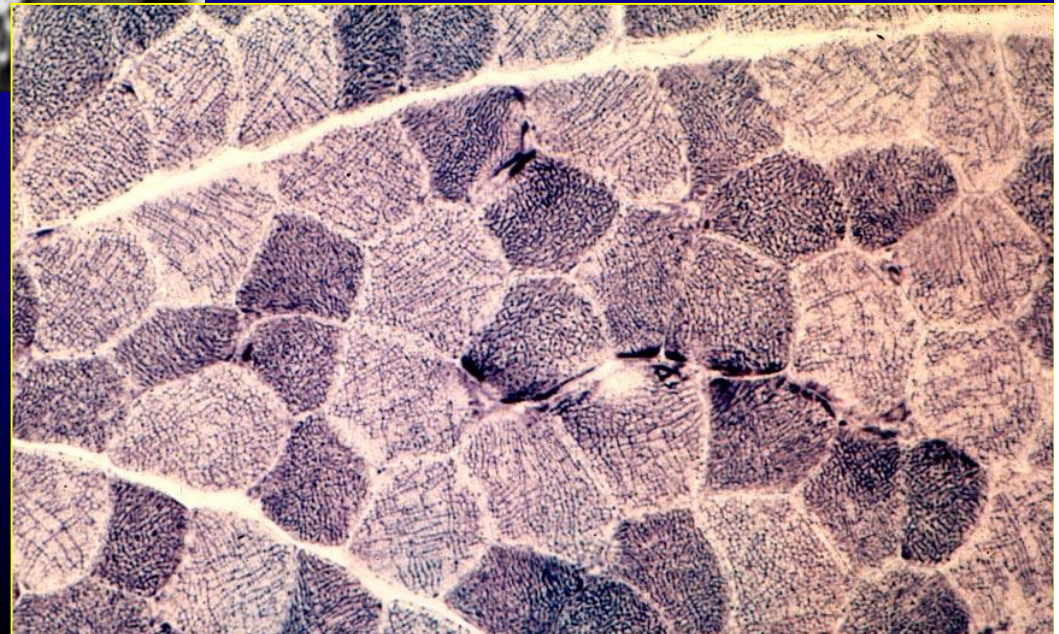
CONTENTION PNEUMATIQUE

POSTERIEURE





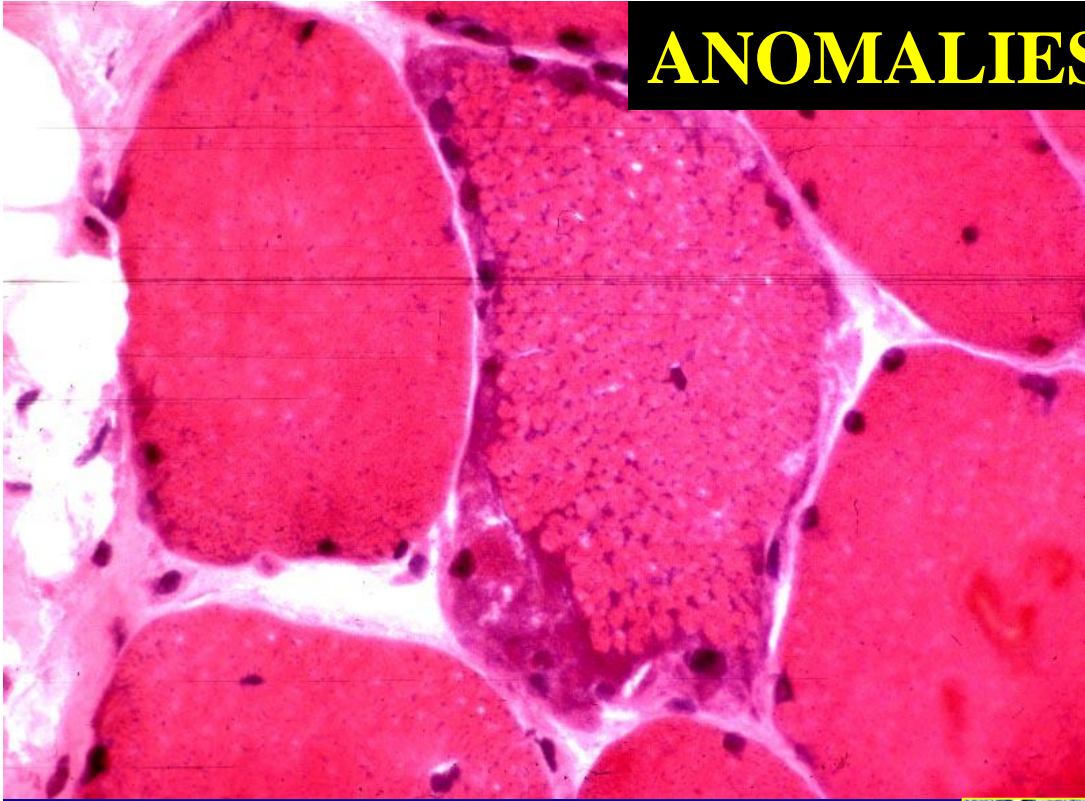
**MULTIFIDUS du
LOMBALGIQUE
CHRONIQUE**



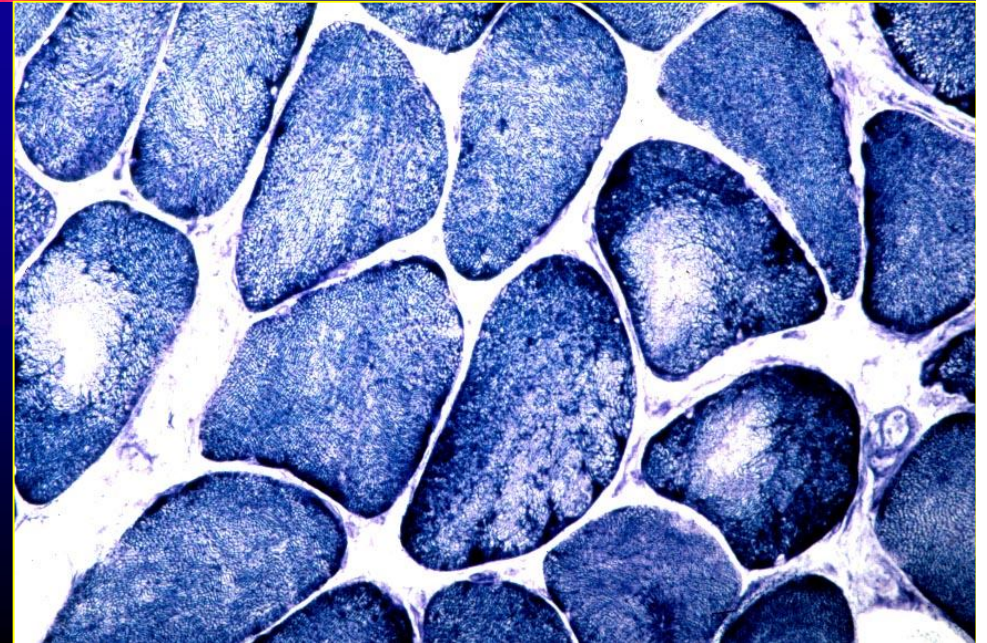
FIBRES TYPE 2



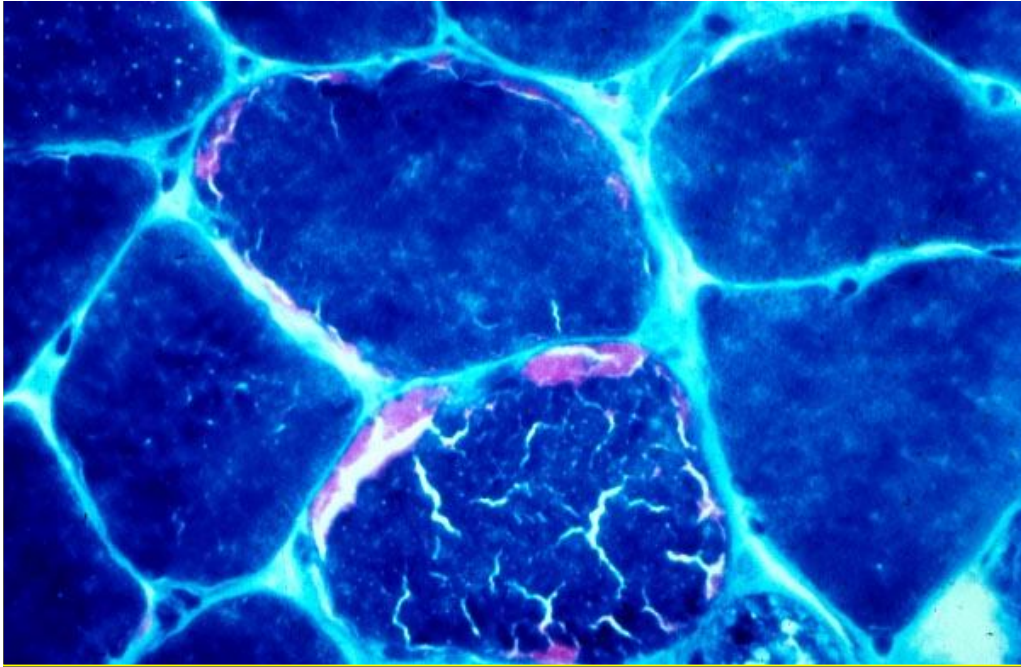
ANOMALIES MITOCHONDRIALES



CORE TARGETOID

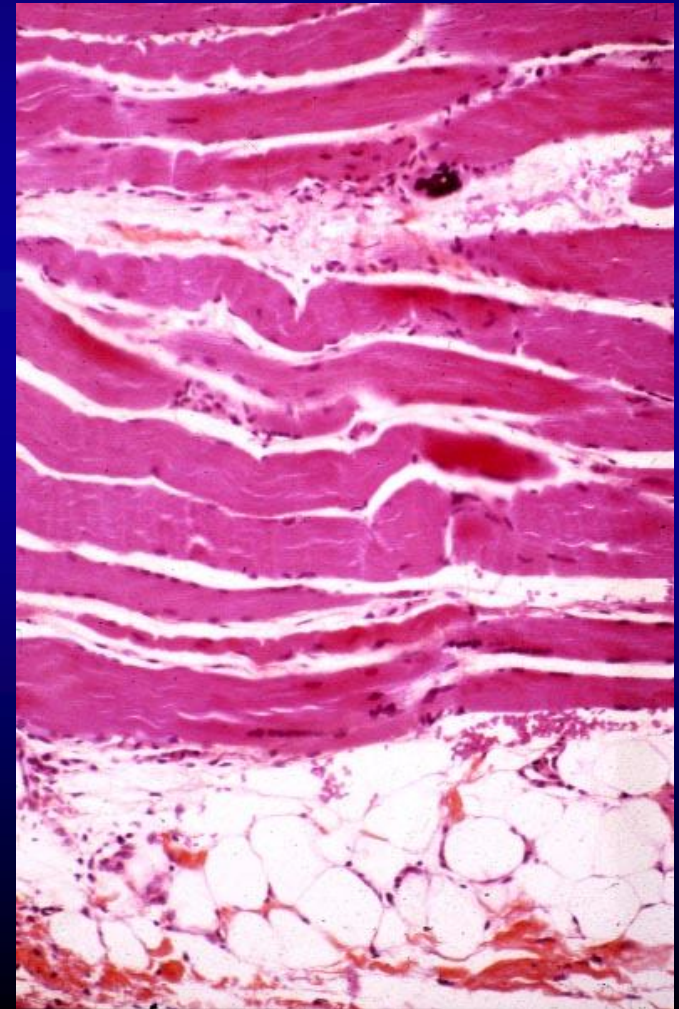


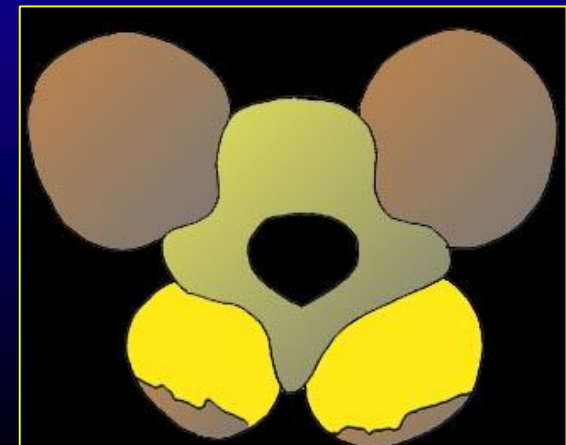
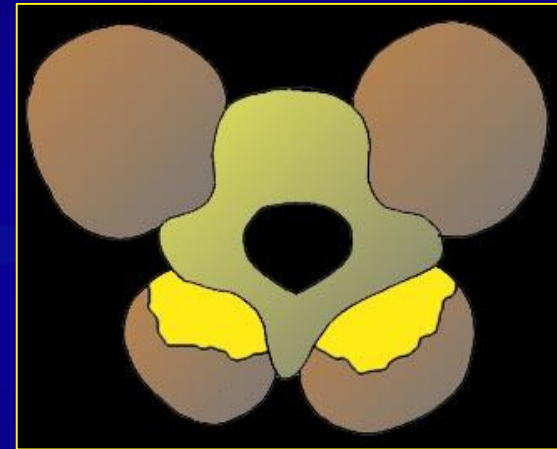
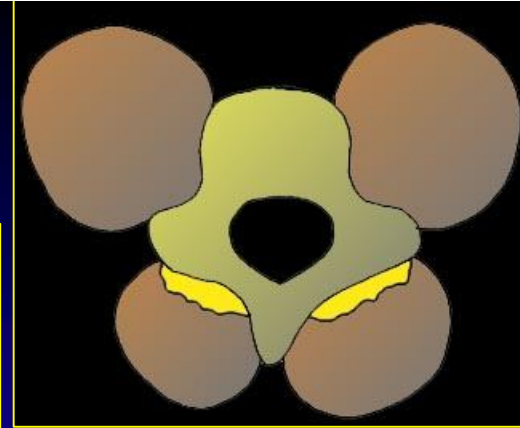
RAGGED RED F.



« MYOPATHIE »

FIBROADIPOSE



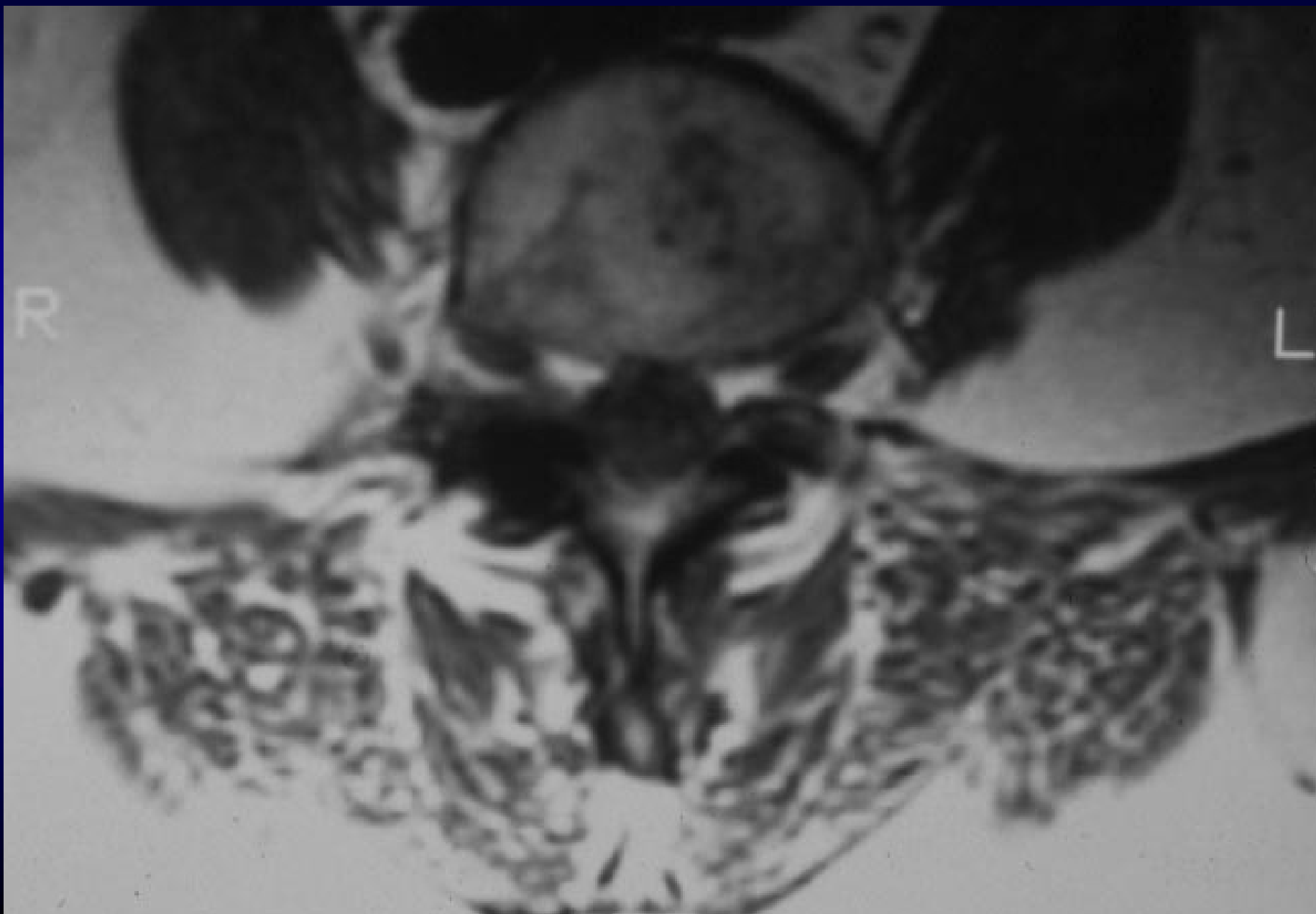


HADAR (1989) □



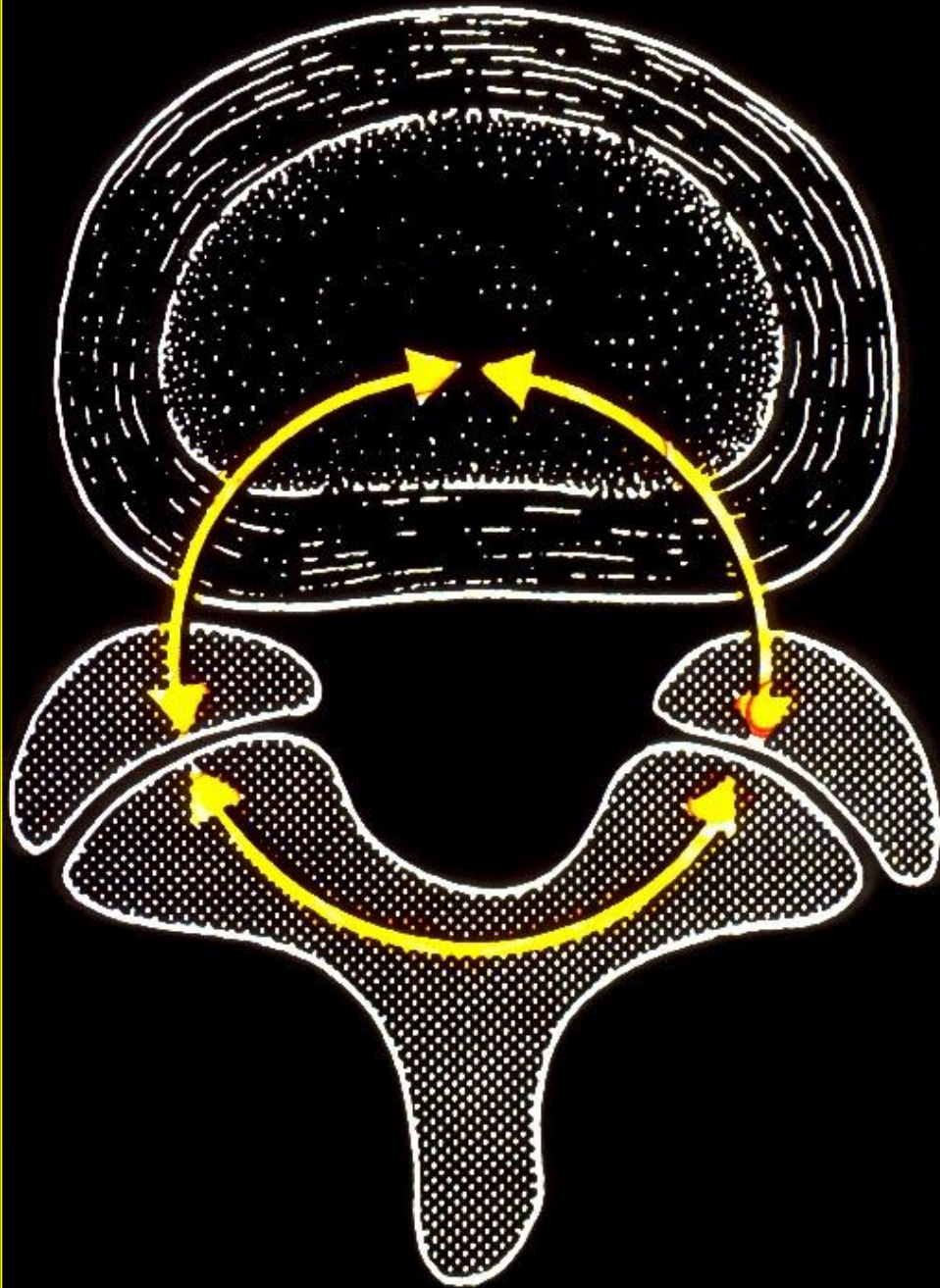
CYPHOSE ARTHROGENIQUE

REGION THORACOLOMBAIRE



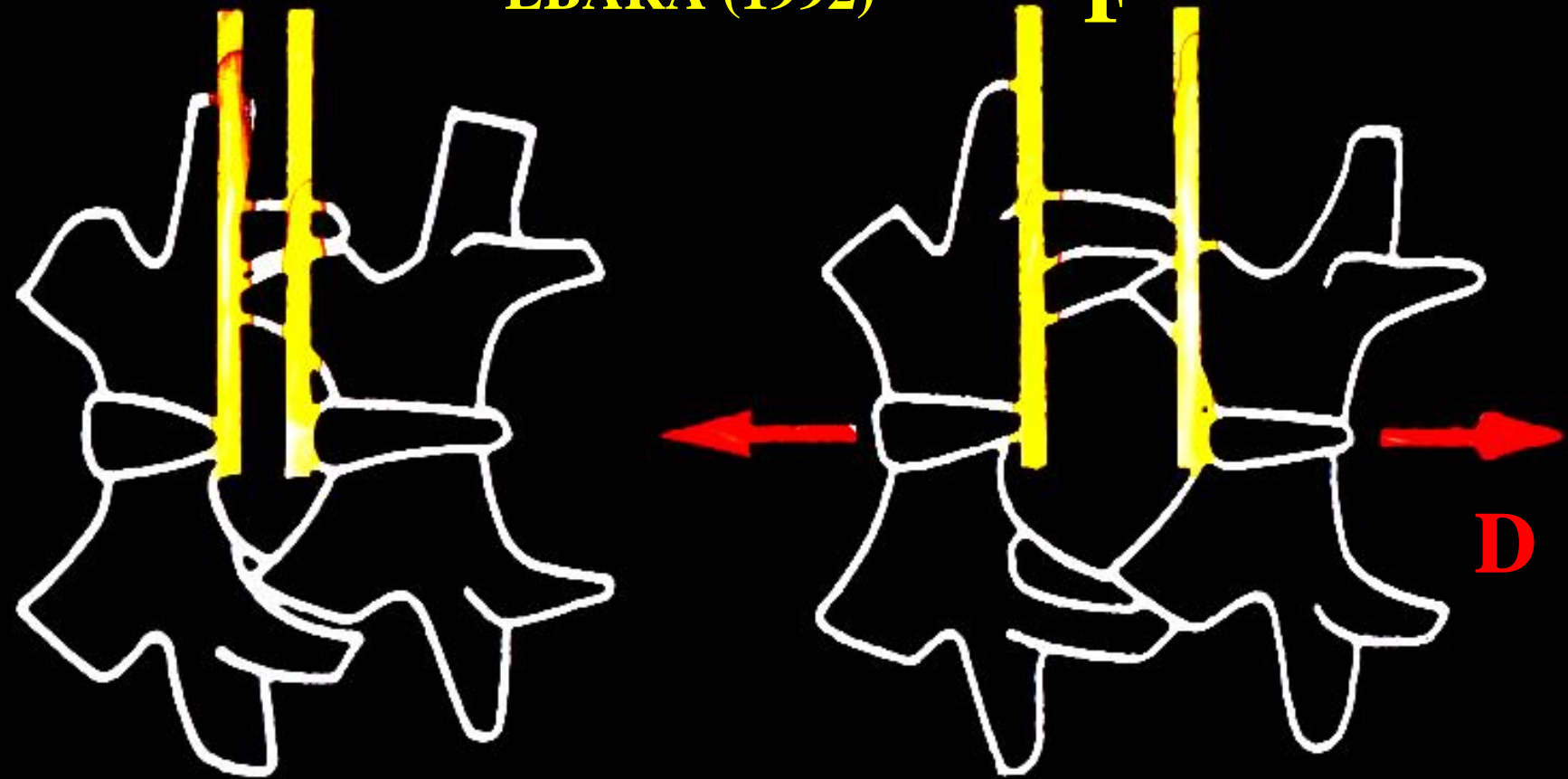


FLEXIBLE

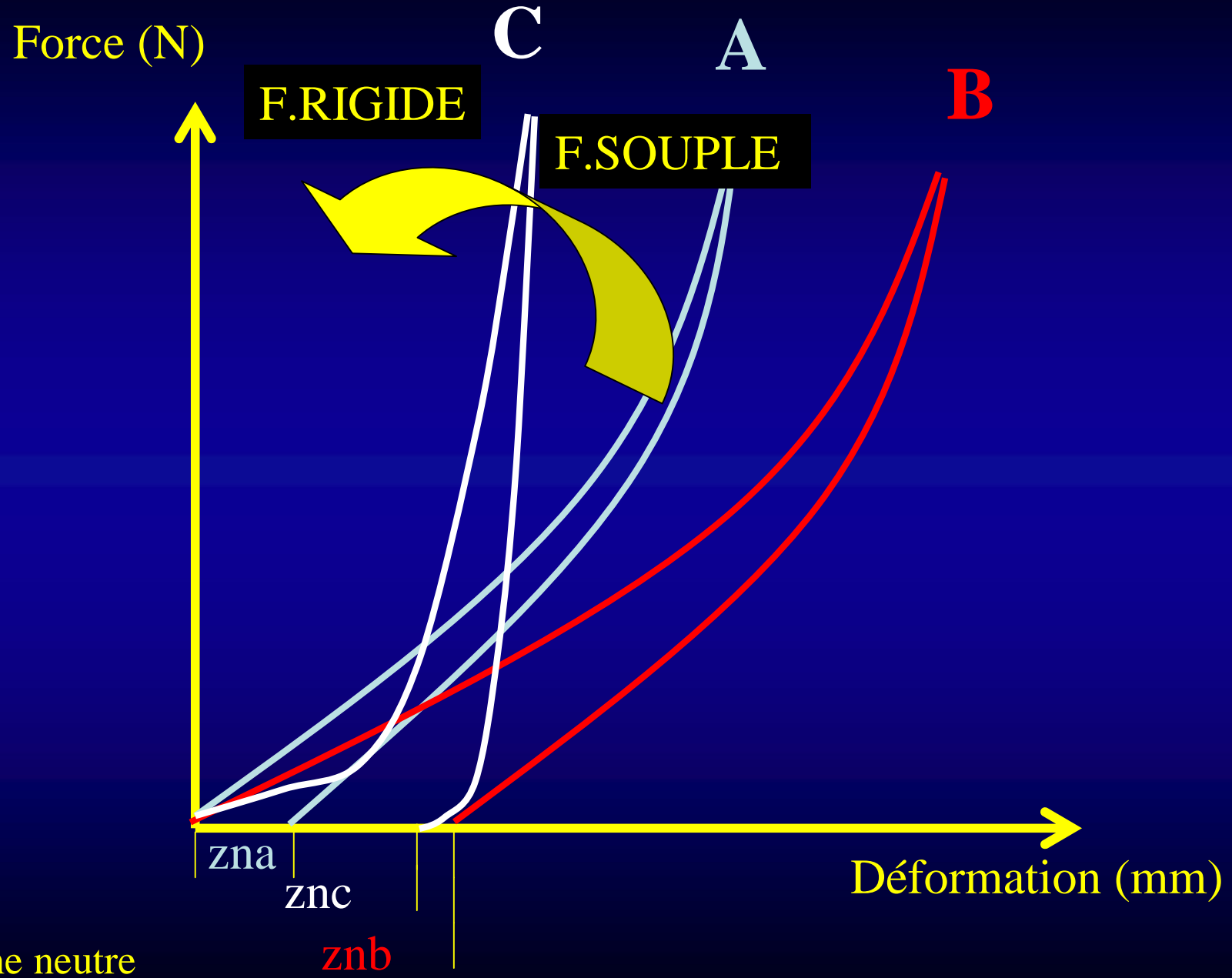


SYSTEME COAXIAL

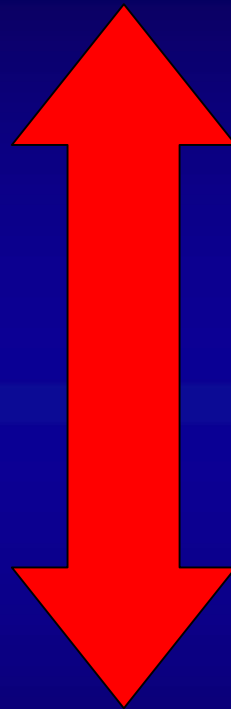
EBARA (1992)



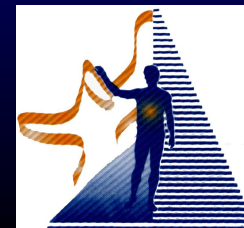
$$\text{RIGIDITE} = \frac{\Delta F}{\Delta D}$$



MECANIQUE



CHIMIQUE



Freemont, Jayson, Goupille
(Lancet 1997)

INFLAMMATION



CYTOKINES



METALLOPROTEINASES

PROTEOLYSE



NEOVASCULARISATION



NERVE GROWTH FACTOR



NEOINNervation

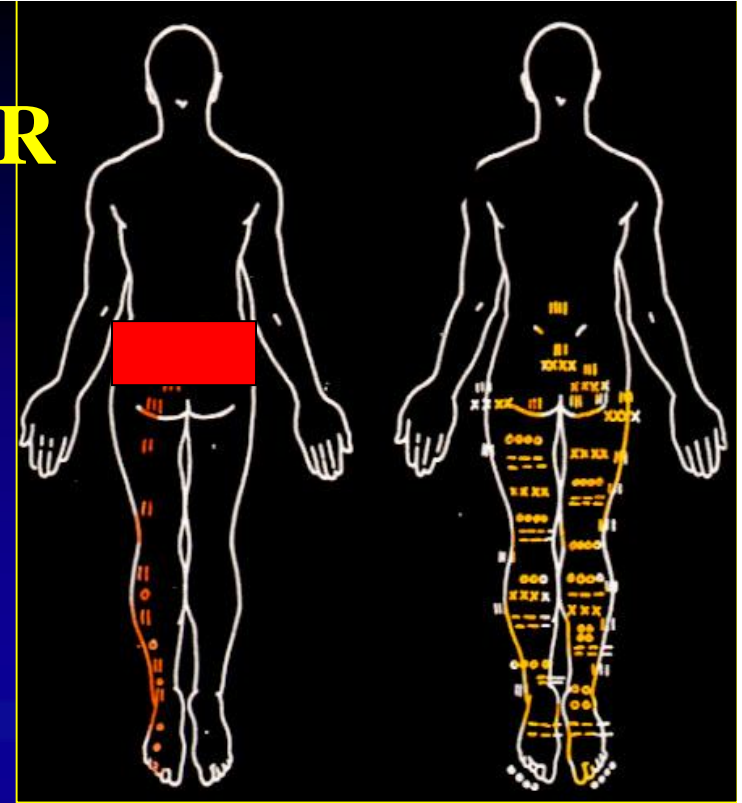
COMMENT EVALUER LA LOMBALGIE ?



EVALUATION de la DOULEUR

EVA

PAIN DRAWING



TESTS PSYCHOMETRIQUES

ANXIETE d' HAMILTON

DEPRESSION d' HAMILTON

de BECK

SCORES FONCTIONNELS

ECHELLE d' INCAPACITE FONCTIONNELLE
pour l' **EVALUATION** des **LOMBALGIQUES**

EIFEL : 24 questions (SFR)

ECHELLE d' IMPOTENCE FONCTIONNELLE
de la **LOMBALGIE** de **QUEBEC**

20 questions (SOFMER)

SCORES FONCTIONNELS

Douleur du **R**achis: **A**utoquestionnaire de **D**ALLAS
D.R.A.D.

activité quotidienne , professionnelle , psychologie

S.F. 36

EXT. TRONC

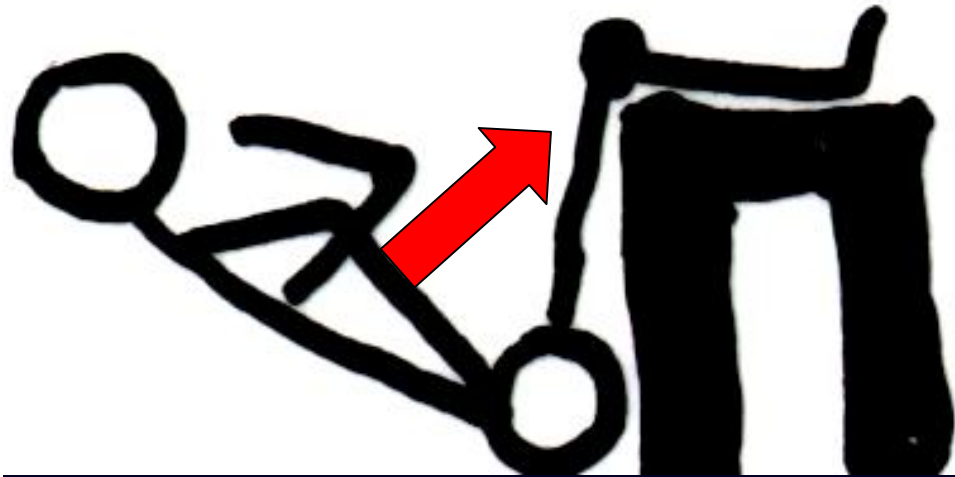


CYBEX

FLECH. TRONC



ATTEINTE PREDOMINANTE DES EXT. TRONC □

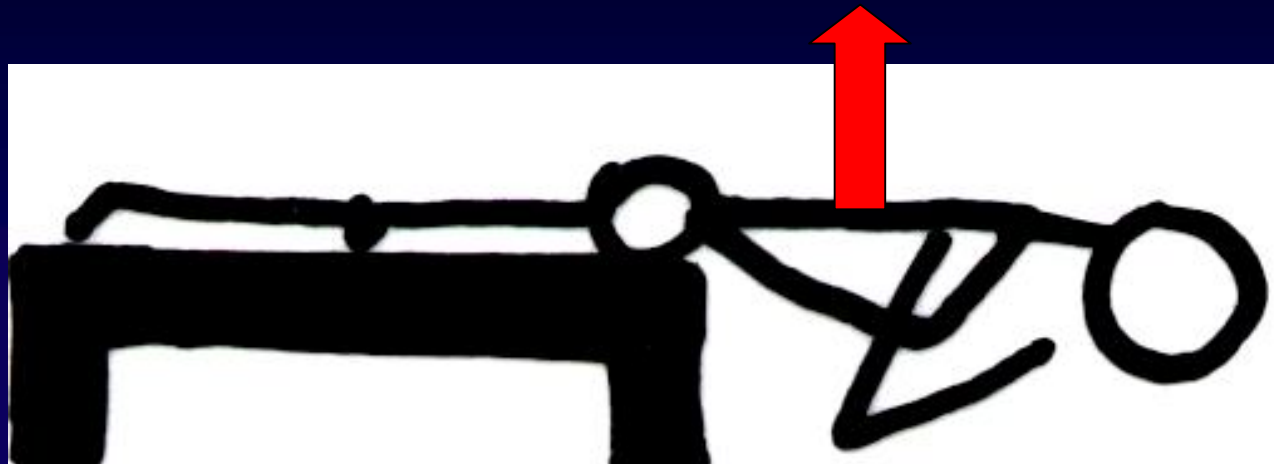


SHIRADO
(abdominaux)

TESTS d' ENDURANCE

E.M.G.

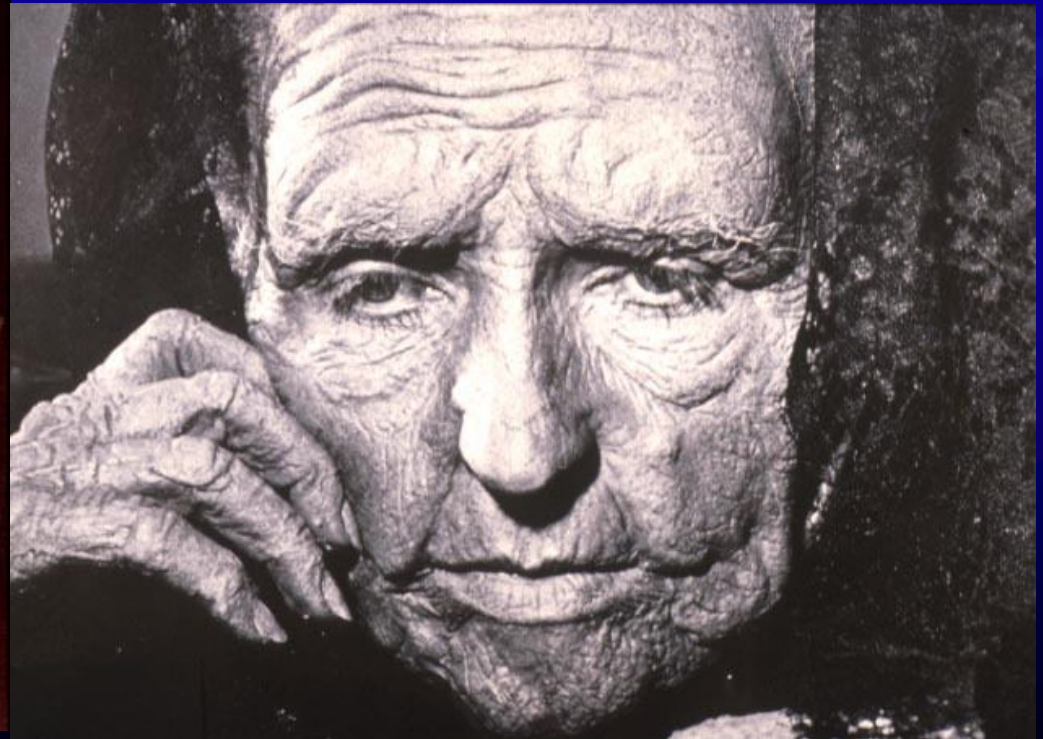
SORENSEN
(ext. lombaires)



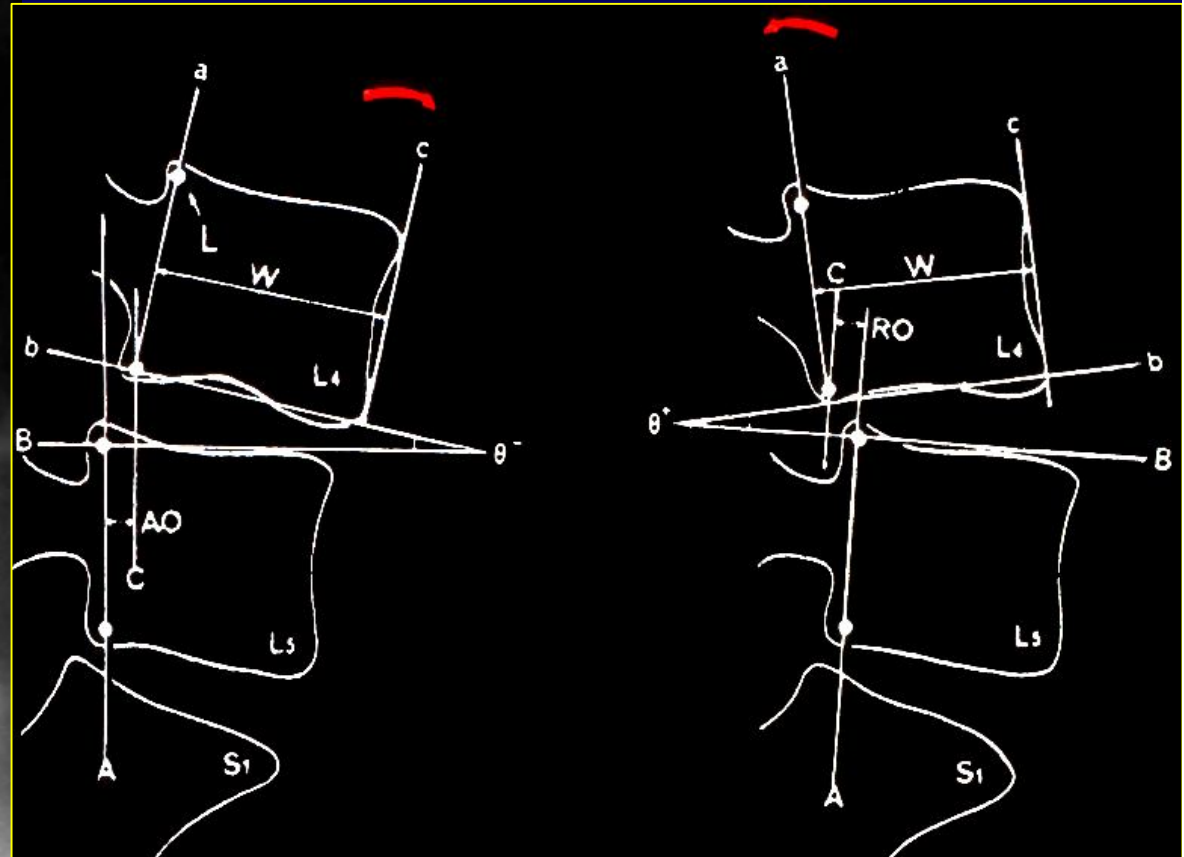
EVALUATION RADIOLOGIQUE

PATHOLOGIE

VIELLISSEMENT



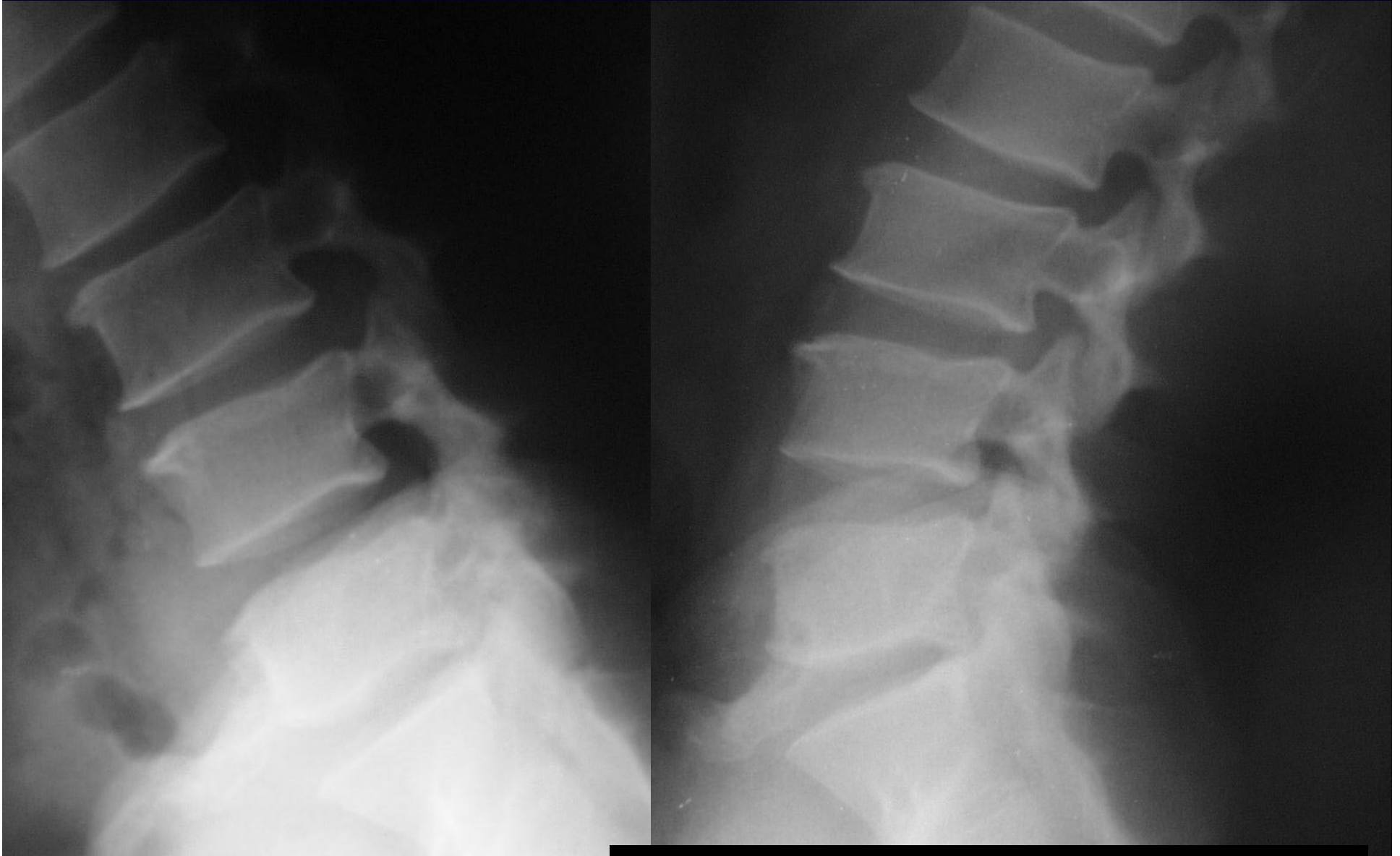
PARALLELISME ANATOMOCLINIQUE



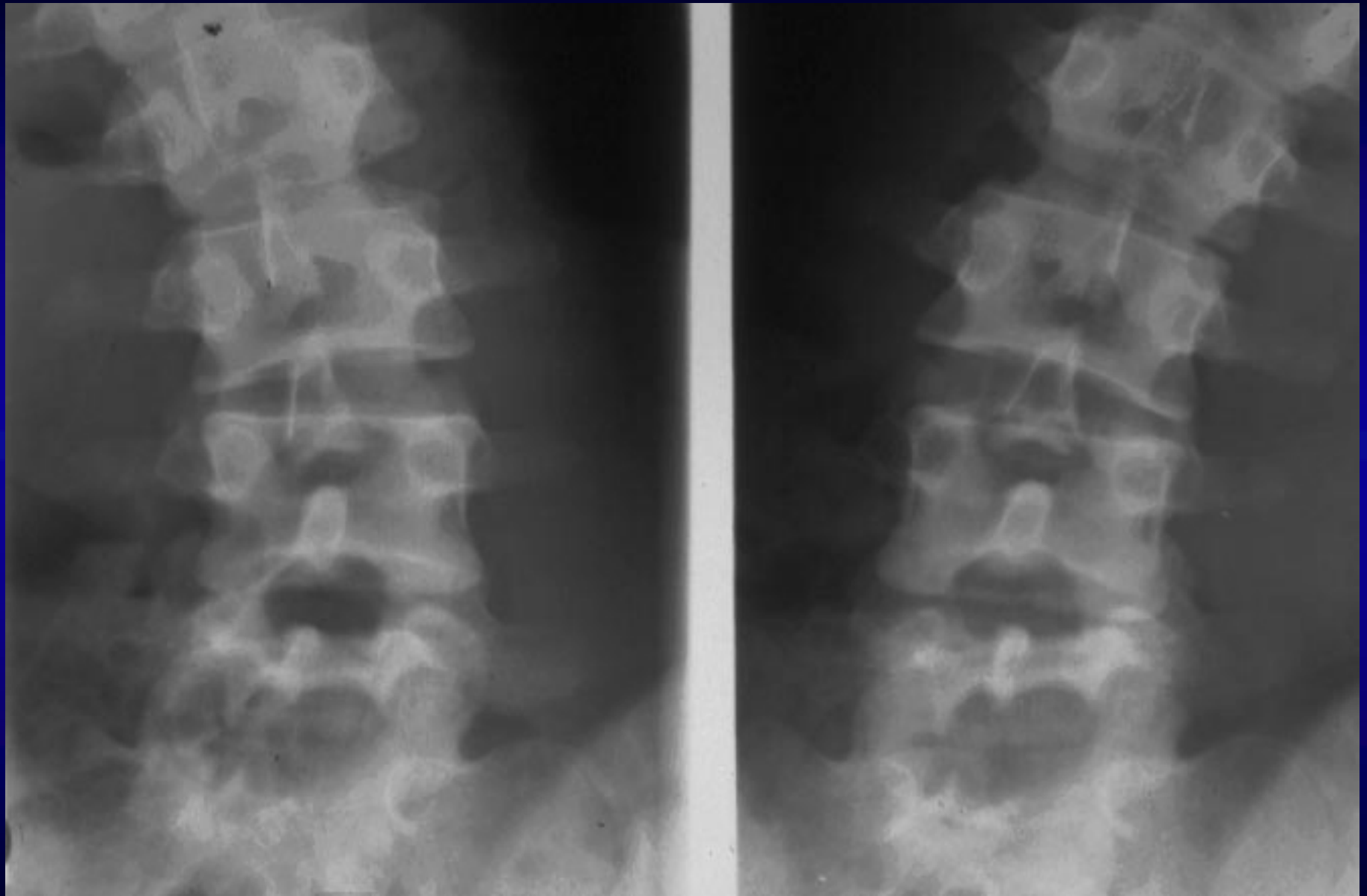
RADIOGRAPHIES DYNAMIQUES

RETROLISTHESIS

MOBILITE ACTIVE



PEARCY , stéréoradiographie , 1985





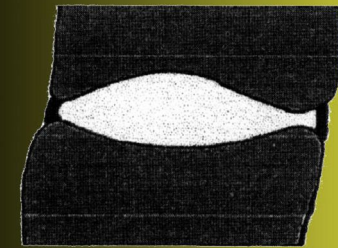
HYPOMOBILITE

TEMPLIER, ENSAM, (1998)

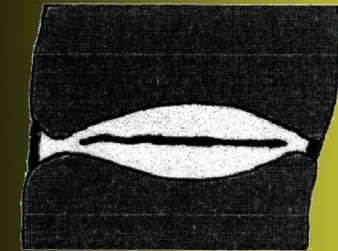




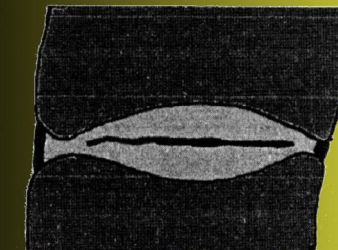
HAUTEUR ET ASPECT DU DISQUE



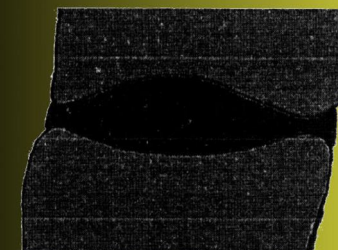
1



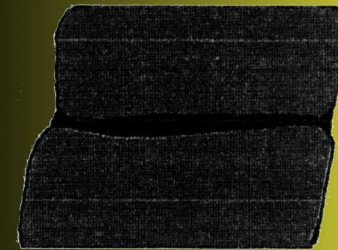
2



3



4



5

PFIRRMANN (Spine 2001)

CLASSIFICATION des DISCOPATHIES (MODIC)

	SEQ. T1	SEQ. T2
STADE 1 (OEDEMATEUX))	NOIR	BLANC
STADE 2 (GRAISSEUX)	BLANC	BLANC
STADE 3 (SCLEREUX)	NOIR	NOIR

MODIC 1



T1



T2



**Phénomène de piston
du à l'insuffisance discale**



**Fissures des plateaux
Microfractures de l'os souchondral**



Hypervascularisation (MODIC)



Médiateurs proinflammatoires (BURKE)



Signal de MODIC 1

Evaluation clinique dans les Discopathies

MODIC 1 et 2

E.V.A. □

SCORE E.I.F.E.L , de QUEBEC

SCORE D.R.A.D

H. RAKOTOVAO (Thèse 2000)

MODIC 2



MODIC 3



T1



T2

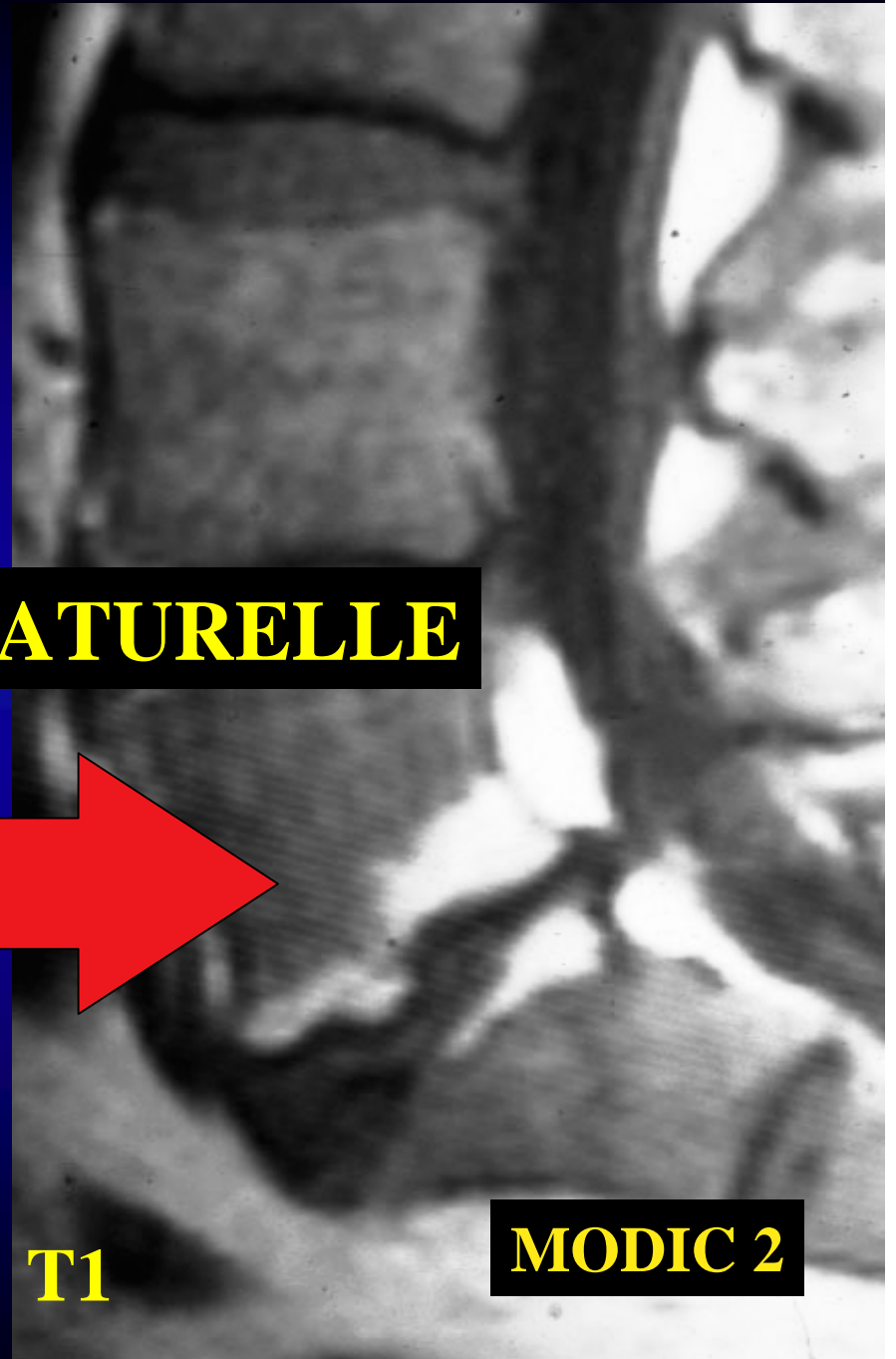
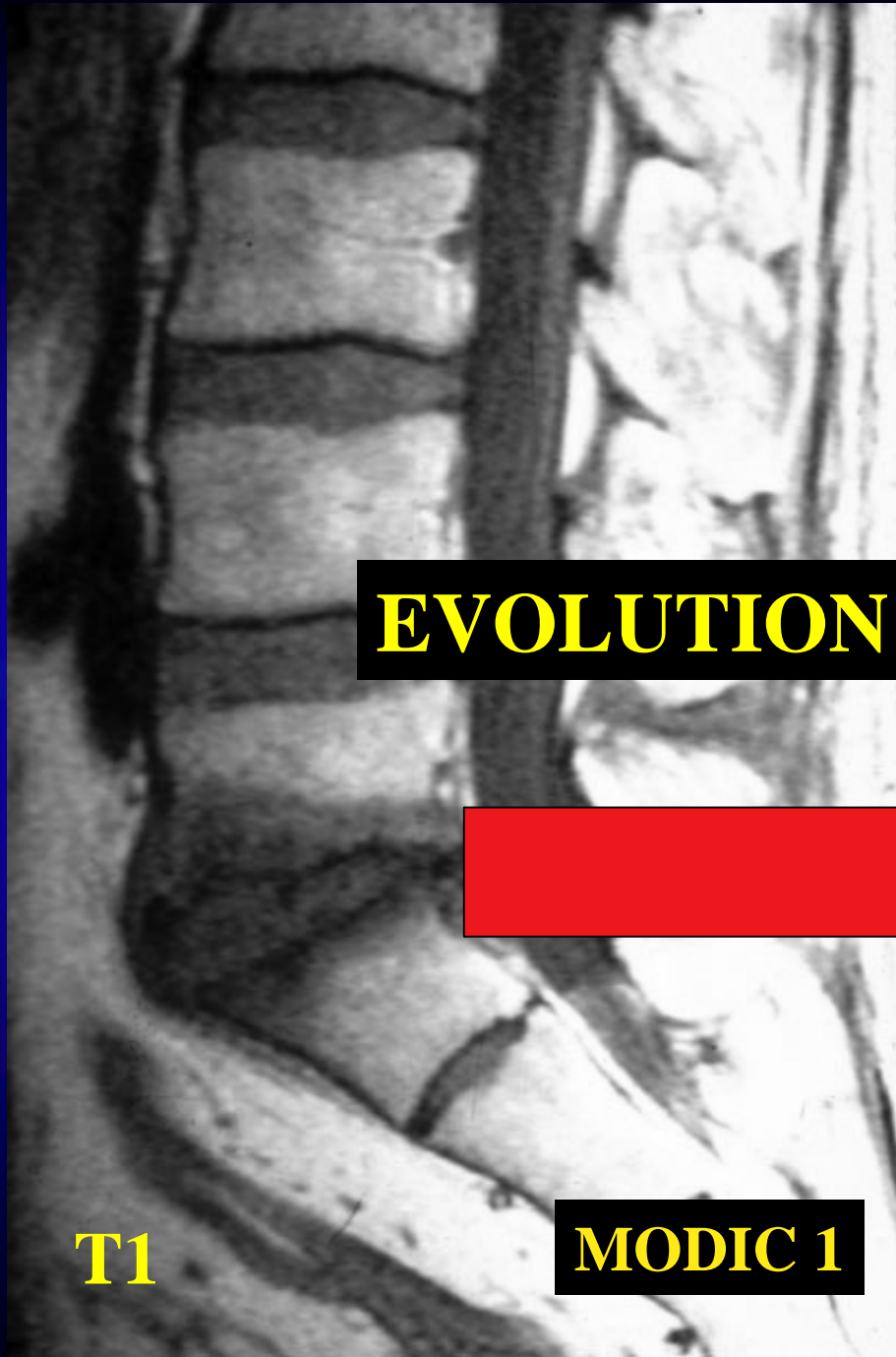
EVOLUTION NATURELLE

T1

MODIC 1

T1

MODIC 2



DISCOGRAPHIE



1. Cottonball



2. Lobular



3. Irregular



4. Fissured



5. Ruptured



REPRODUCTION de la DOULEUR

ETUDE COMPARATIVE IRM DISCOGRAPHIE

M PEDRAM

Réponse à la douleur positive si
douleur typique à l'injection

17 Patients (8H-9F)






Lombalgie chronique

Age 43 ans (29-60)

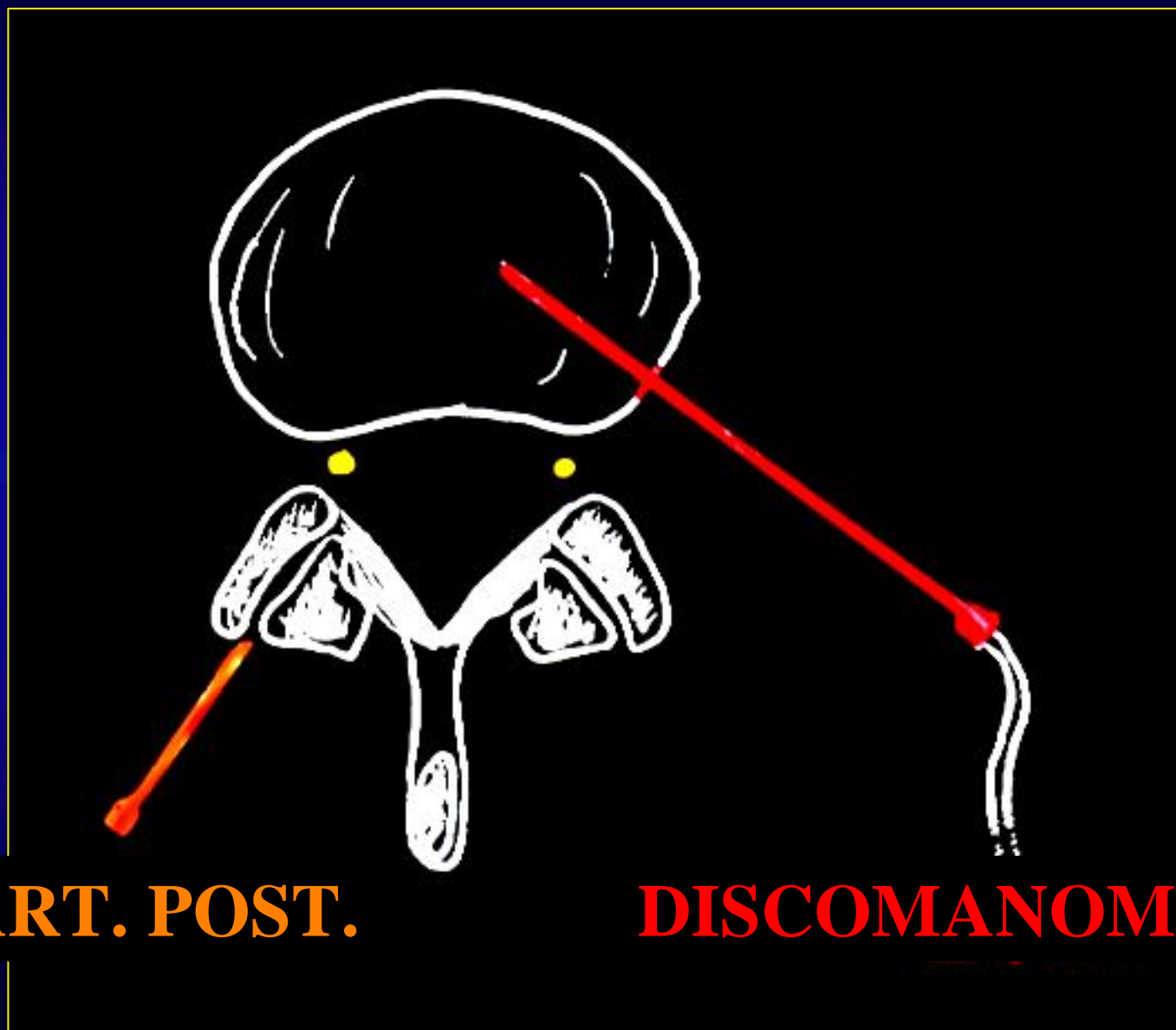
32 disques

Niveau	n
L3-L4	2
L4-L5	16
L5-S1	14

Modic	nb	Test +
0	19	4
1	8	7
2	5	3
3	-	-

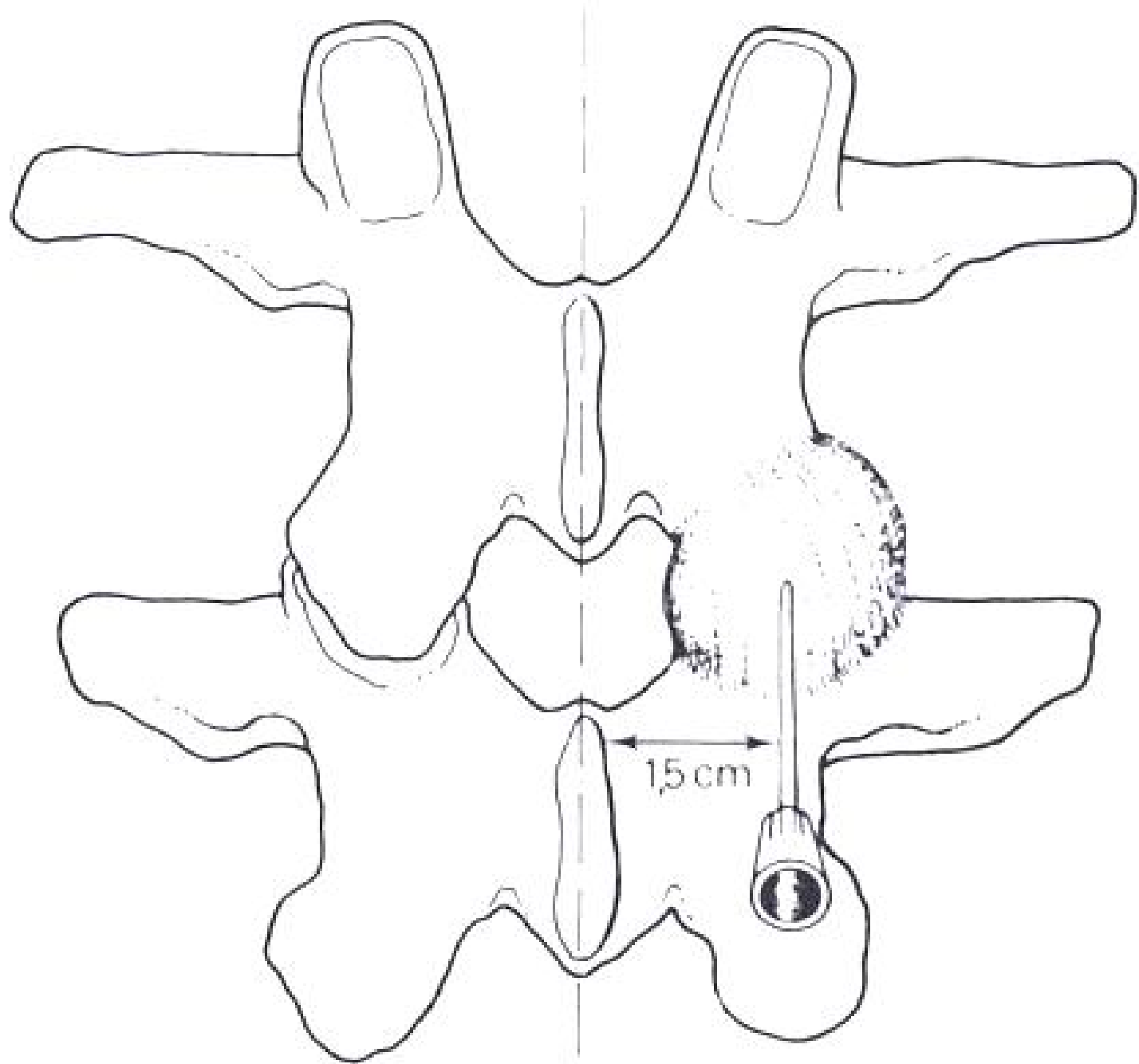
Pfarrmann		nb	Test +
	1	1	0
	2	3	0
	3	3	0
	4	13	4
	5	12	10

AUTRES TESTS PERCUTANES

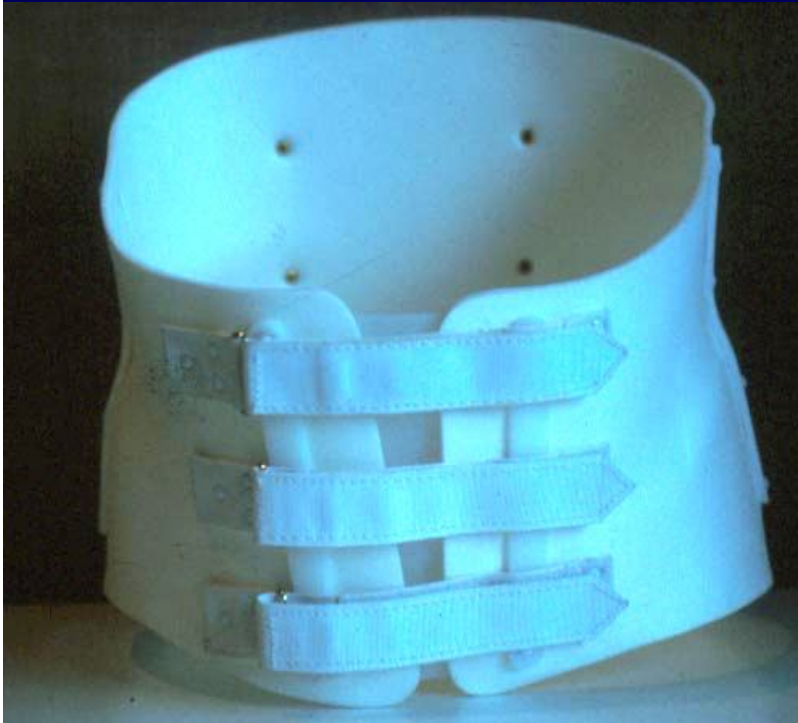


INF. ART. POST.

DISCOMANOMETRIE

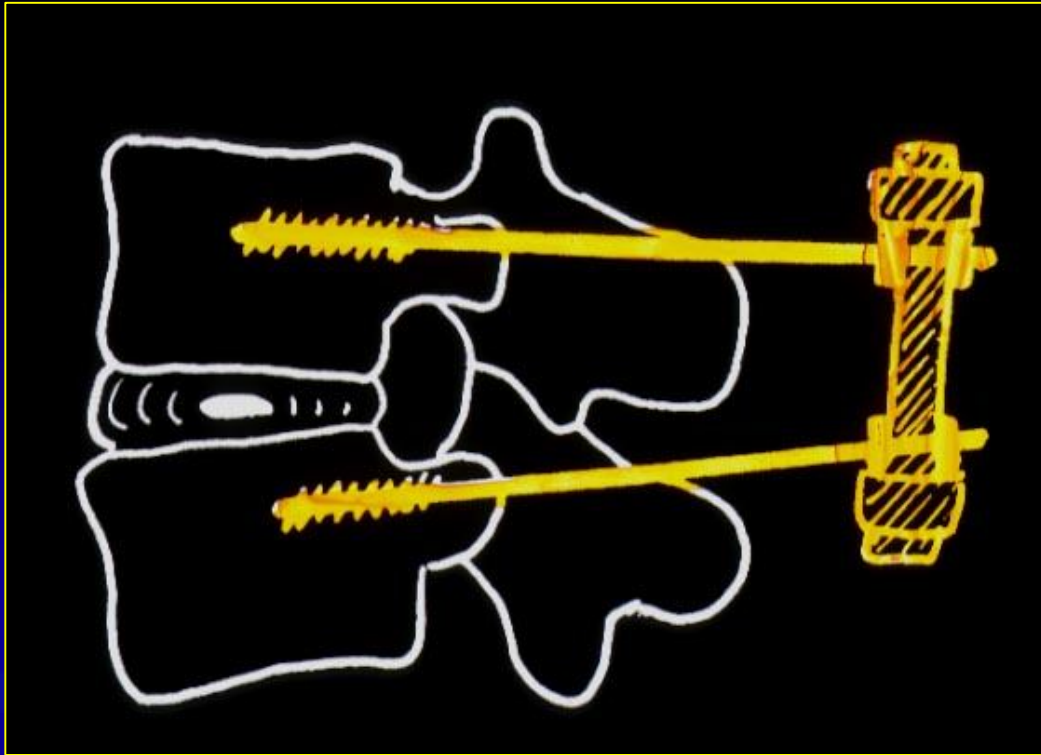


TESTS D'IMMOBILISATION

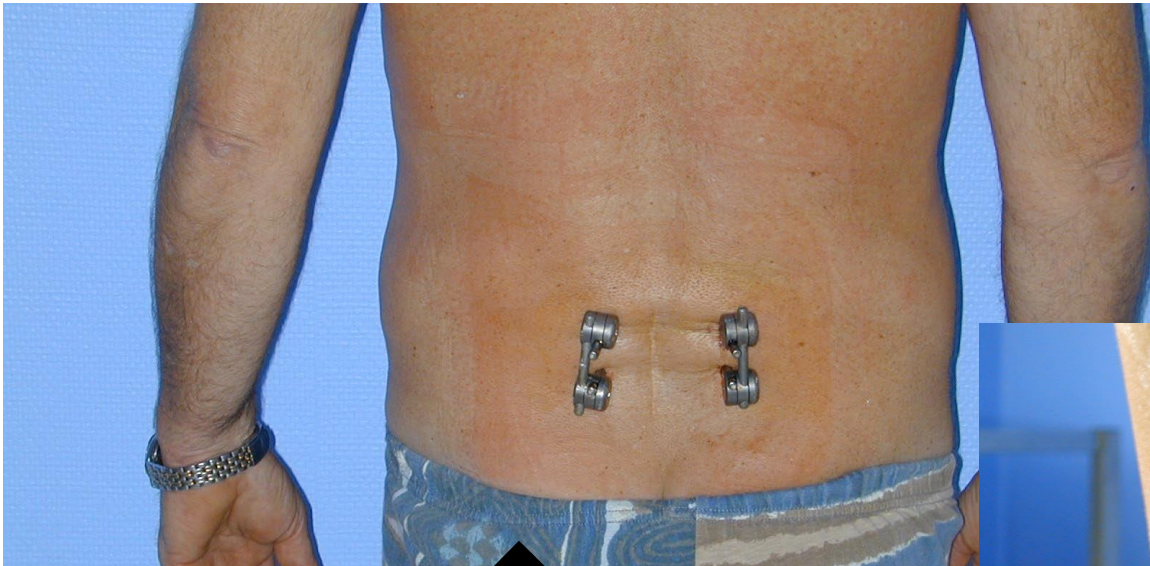


CORSET

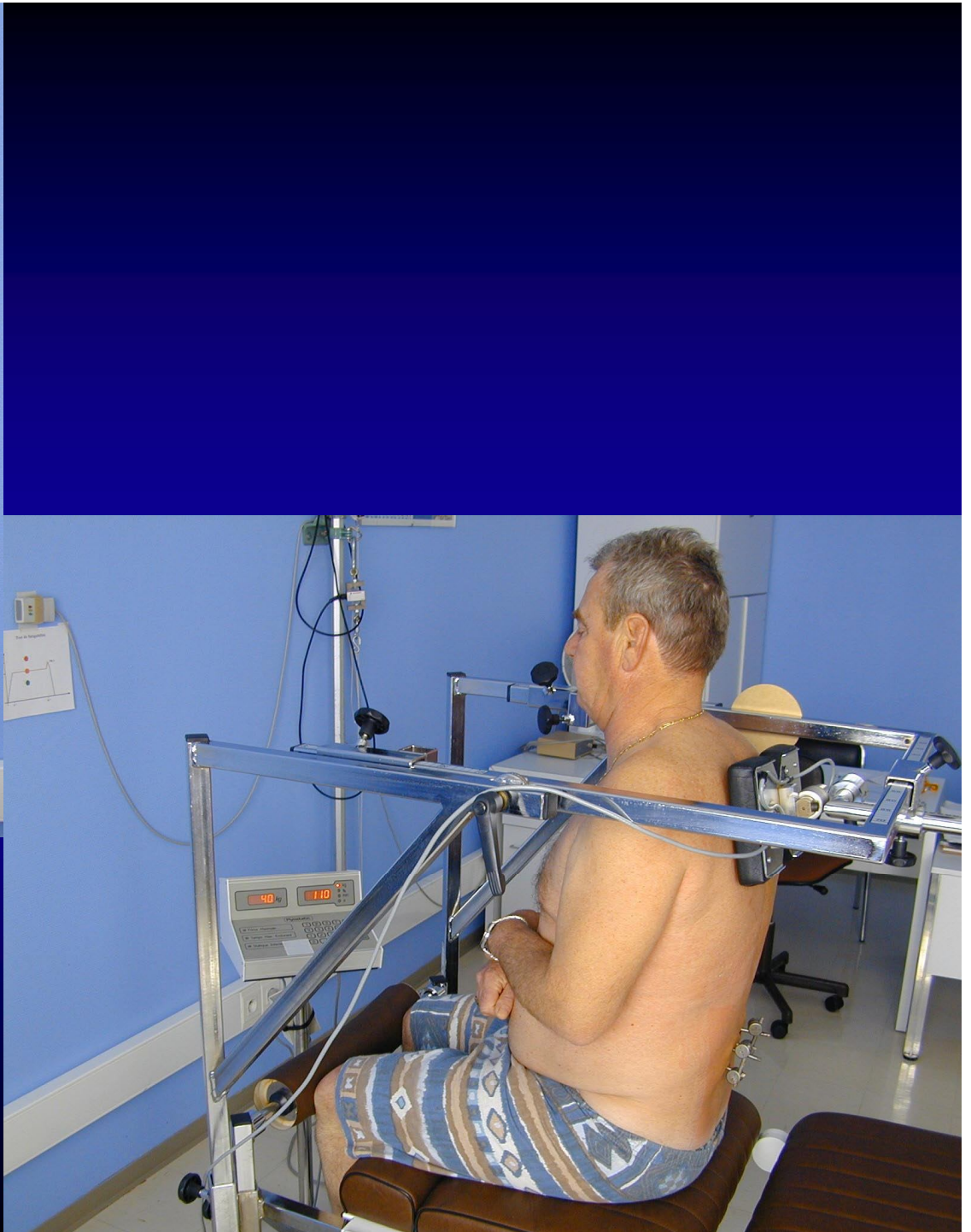




FIXATEUR EXTERNE



TESTS POST OPERATOIRES



COMMENT TRAITER LA LOMBALGIE ?



TRAITEMENT MEDICAL

- ANTALGIQUES
- A.I.N.S.
- MYORELAXANTS
- ANTIDEPRESSEURS
- LAROXYL , HALDOL faible (**LOUIS**)

TRAITEMENTS PERCUTANES

- **RHIZOLYSE THERMOLYSE**
- **I.D.E.T. , ANNULOPLASTIE RADIOF.**

- **CHIMIONUCLEOLYSE**
- **NUCLEOTOMIE**
- **NUCLEOASPIRATION**
- **LASER**

SCIATIQUE

MEDECINE PHYSIQUE et REEDUCATION

- **CONTENTION EXTERNE**
- **MANIPULATIONS**
- **TRACTIONS**
- **MASSAGES**
- **PHYSIOTHERAPIE**

MEDECINE PHYSIQUE et REEDUCATION

- **RENFORCEMENT MUSCULAIRE**
en **CYPHOSE** de **WILLIAMS**
en **LORDOSE** de **MAC KENSIE**
en position interm. de **TROISIER**
- **ETIREMENT MUSCLES SOUS PELVIENS**
- **R. PROPRIOCEPTIVE LOMBOPELVIENNE**
- **TOXINE BOTULINIQUE (FOSTER , 2001)**
- **METHODES GLOBALES**

METHODES GLOBALES

- **ECOLES du DOS : contrat**

- **REENTRAINEMENT**

RECONDITIONNEMENT à l'EFFORT

MAYER (1985) , CRF l'Espoir LILLE

« Se reposer , c'est se rouiller »

Assurances

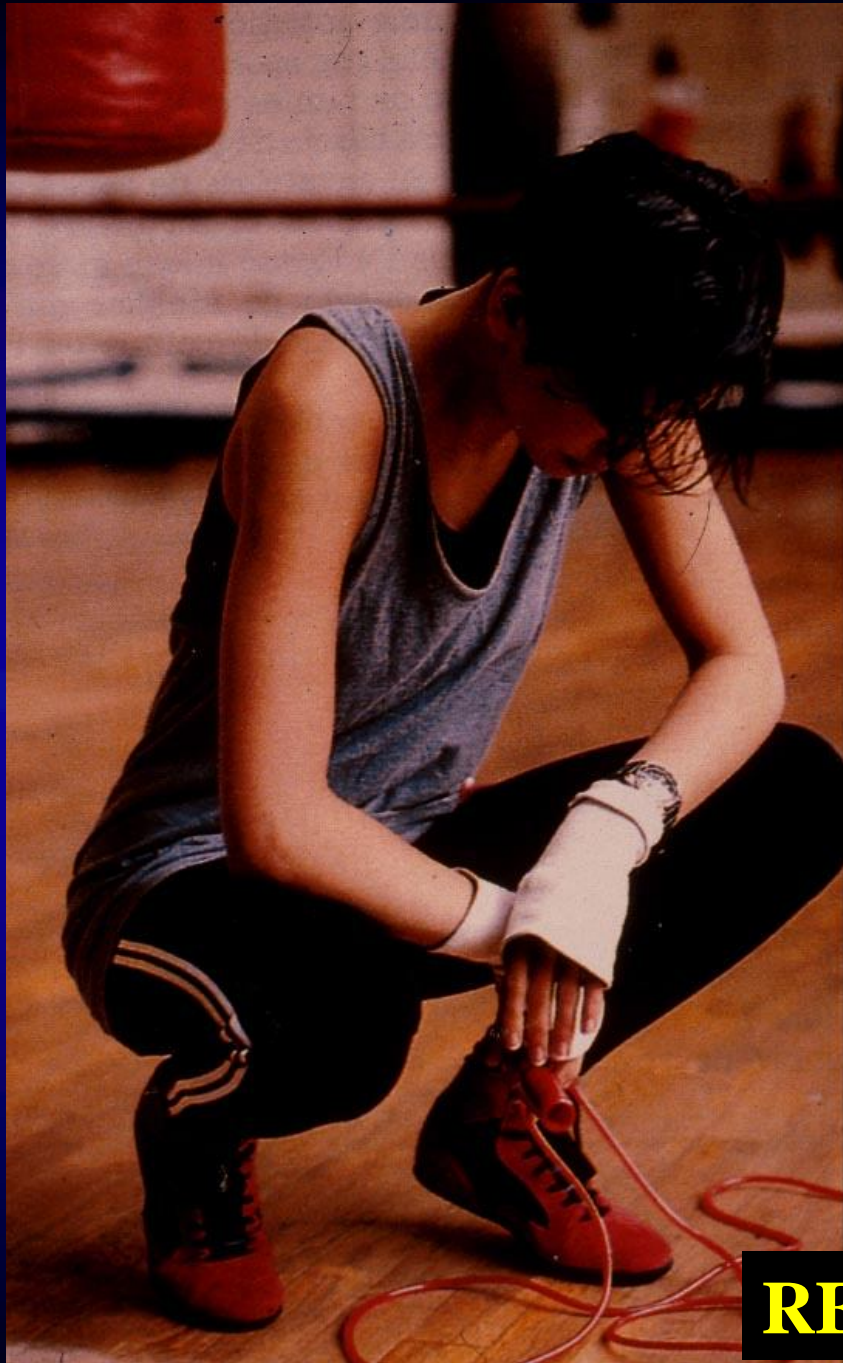
But : Reprise du Travail

TEST P.I.L.E.



Progressive Inertial Lift Evaluation

RECONDITIONNEMENT PHYSIQUE



RESTABILISATION « ACTIVE »

LOMBALGIE CHRONIQUE

```
graph TD; A[LOMBALGIE CHRONIQUE] --> B[RETABILISATION ACTIVE]; B --> C[SUCCES:20%]; B --> D[ECHEC:80%]; C --> E[POURSUITE des EXERCISES];
```

RETABILISATION ACTIVE

SUCCES:20%

ECHEC:80%

POURSUITE des EXERCISES

ECHEC:80%

5%

75%

PATIENT MOTIVE

PATIENT PEU MOTIVE

PAS DE PB. SOCIO-PROF.

PB. SOCIO-PROFESSIONNELS

PEU DE NIVEAUX

PLUSIEURS NIVEAUX

MOINS DE 60 A.

TT. SYMPTOMATIQUE

PLUS DE 60 A.

LIGAMENT, PROTHESE

FUSION

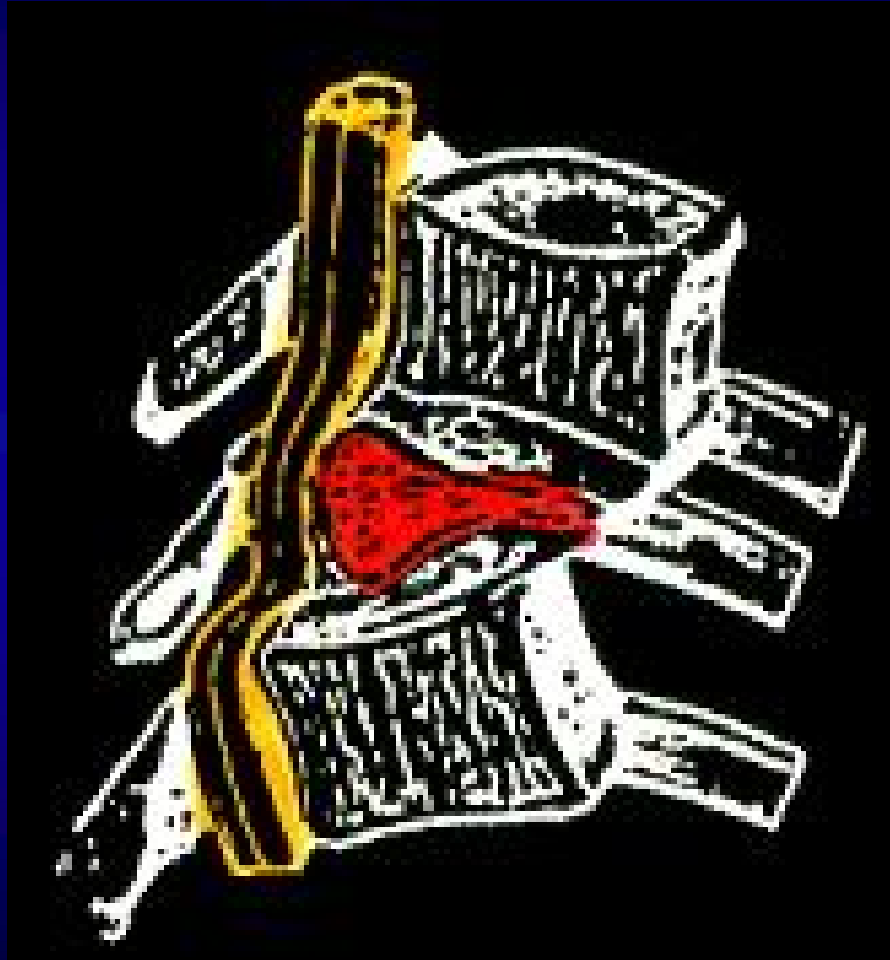
RESTABILISATION ACTIVE

CHIRURGIE et

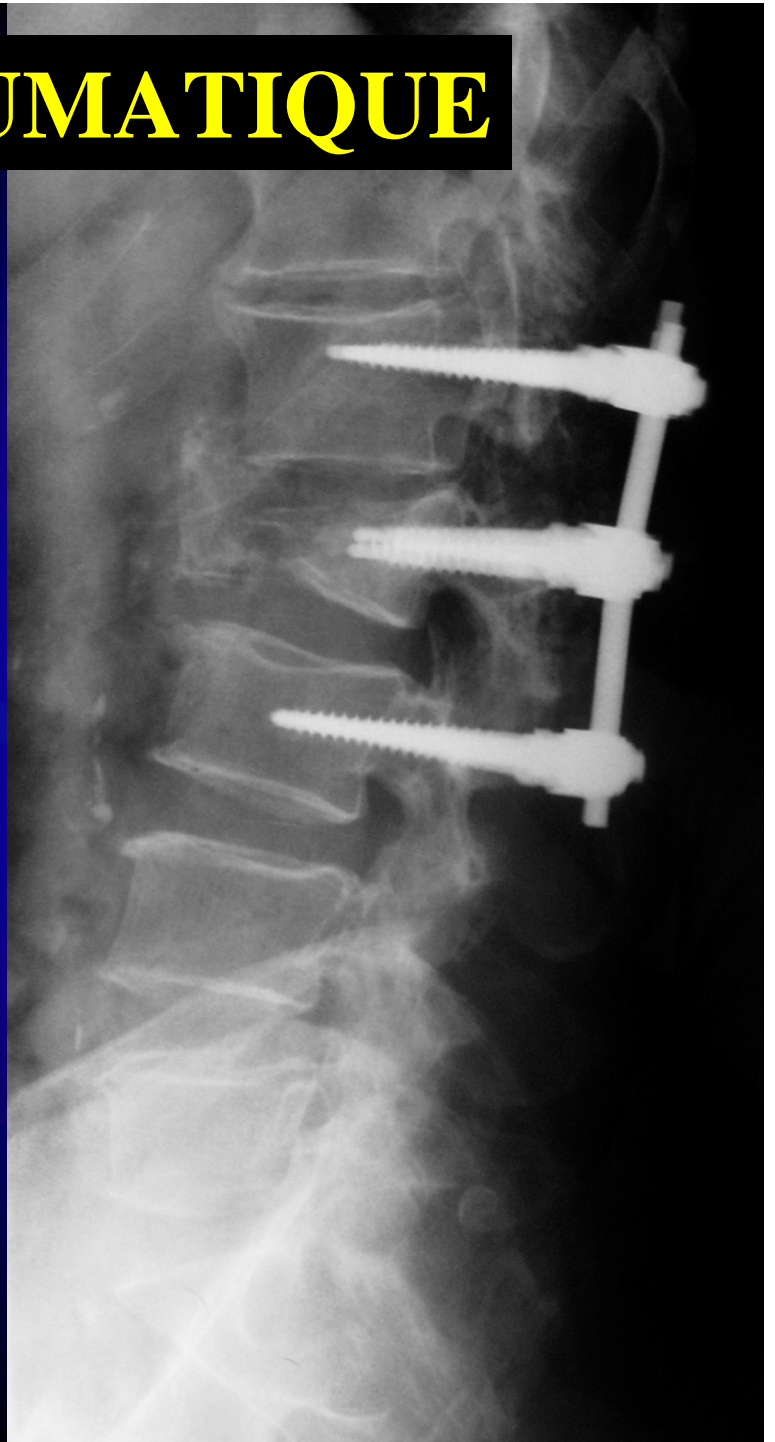
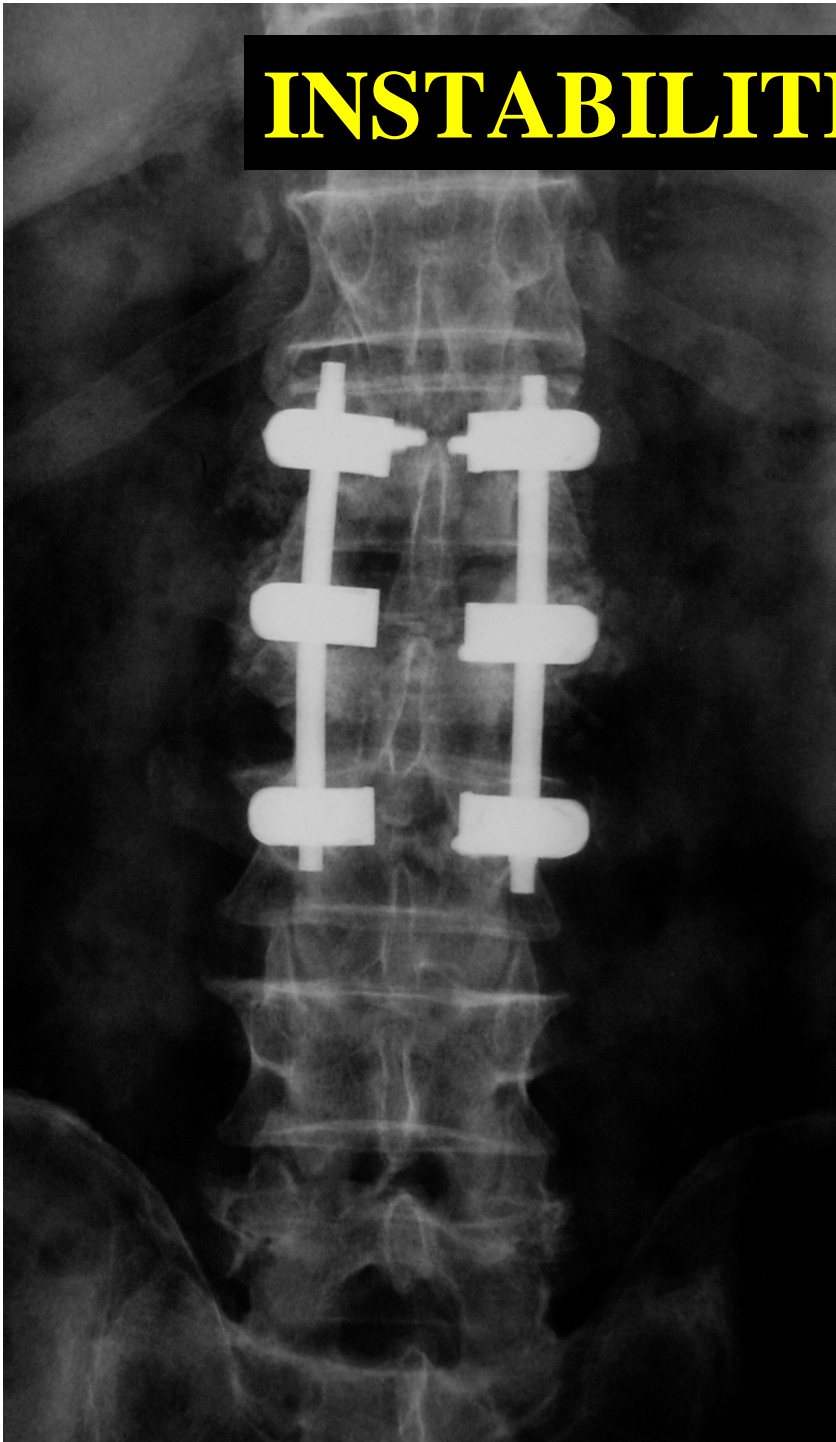
LOMBALGIES CHRONIQUES

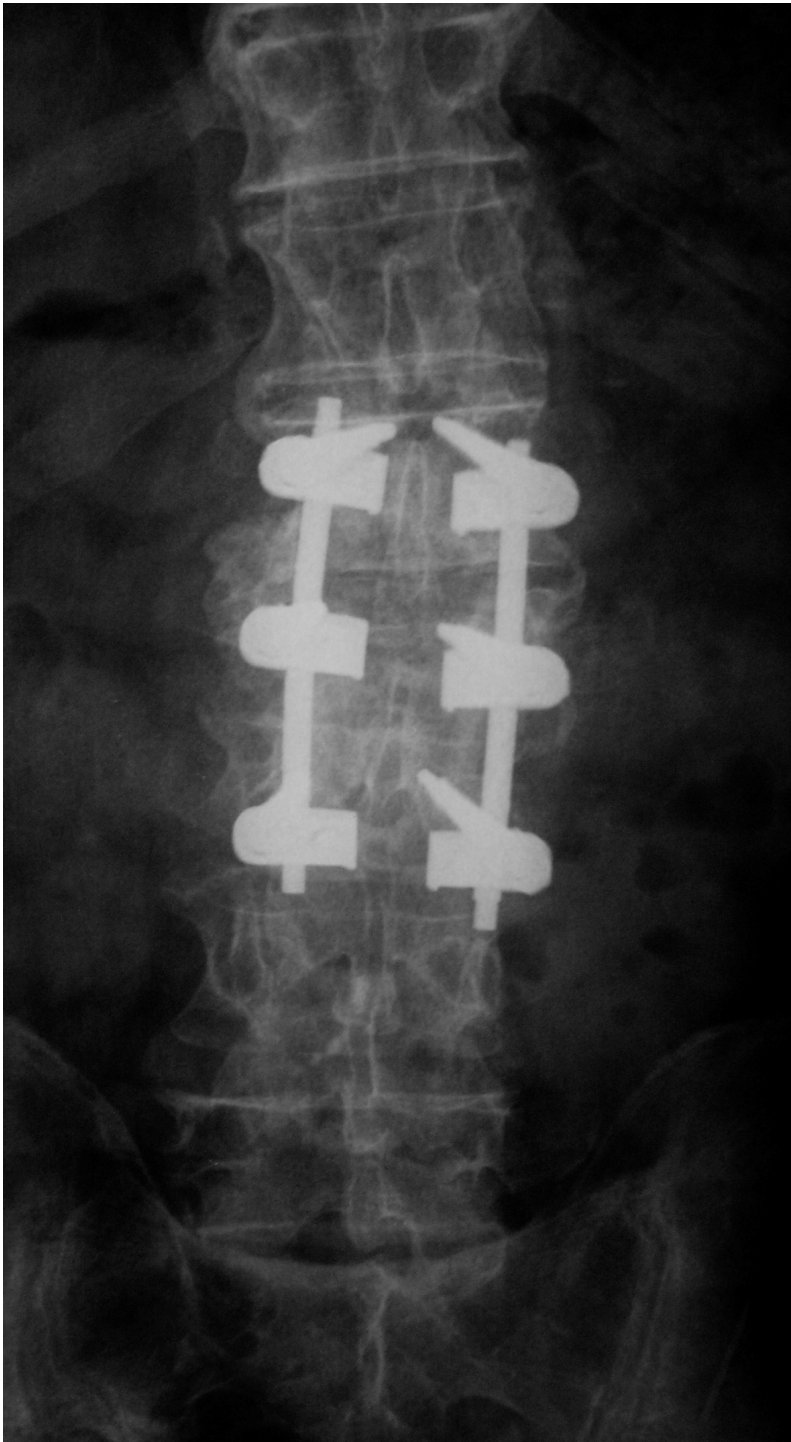


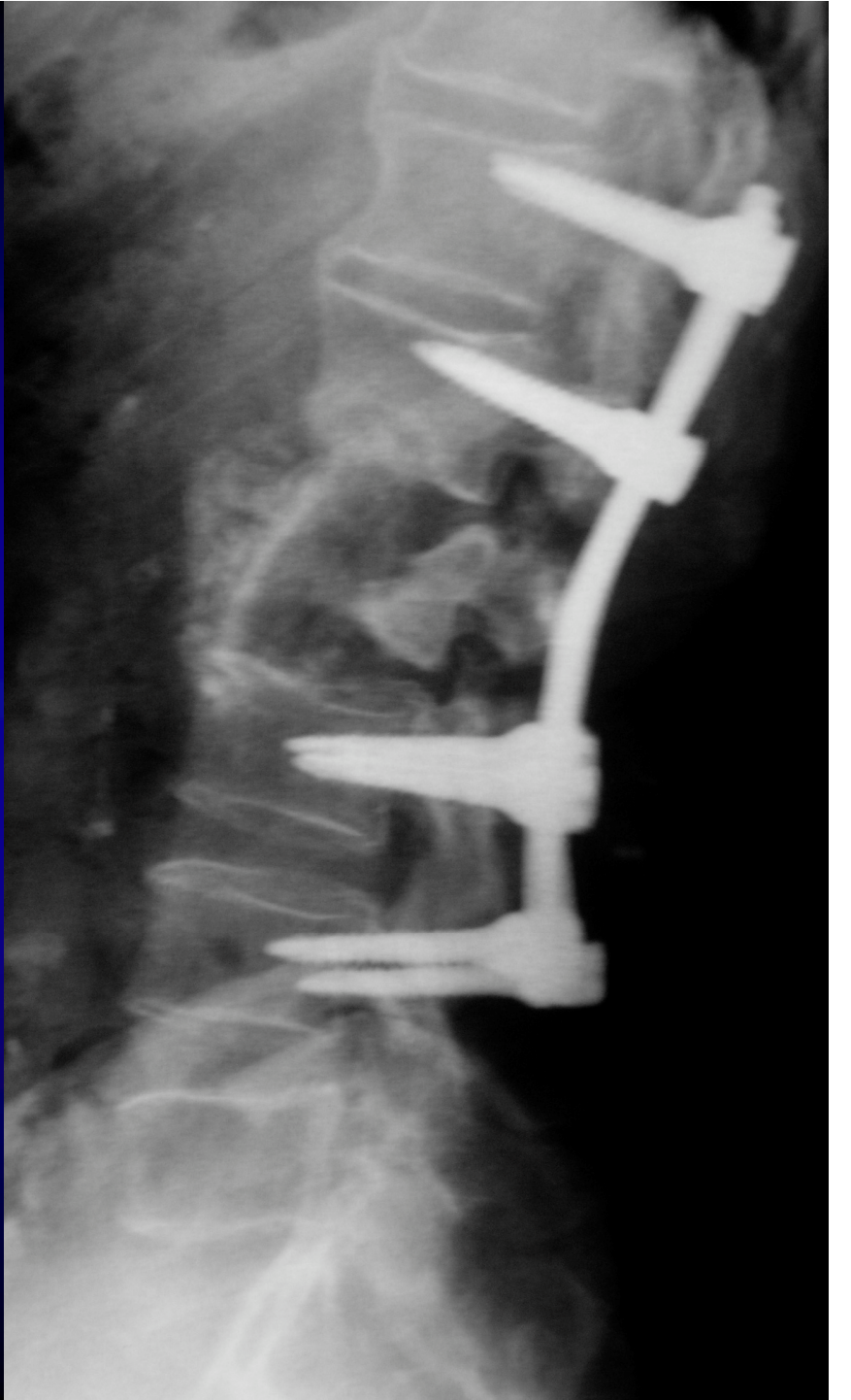
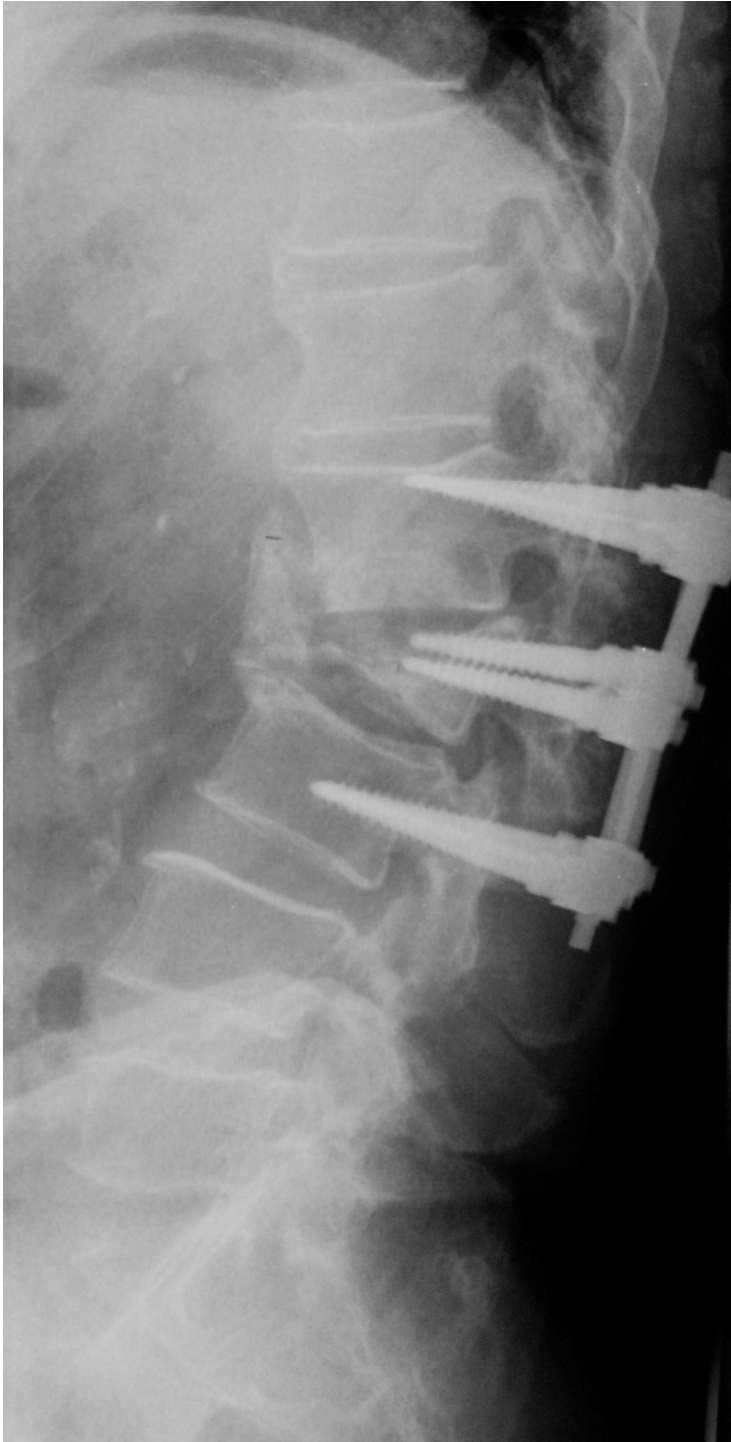
INSTABILITE TUMORALE

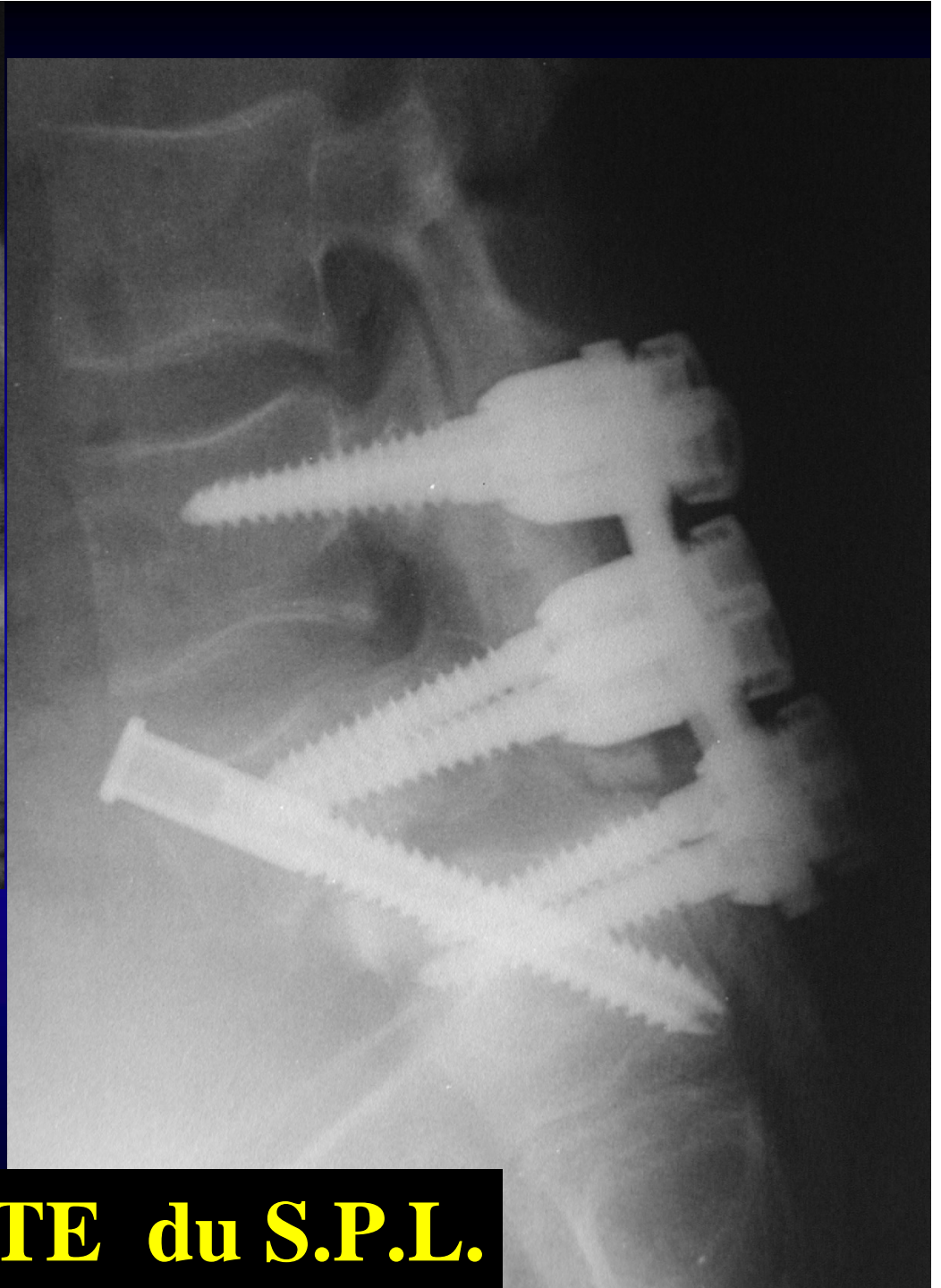
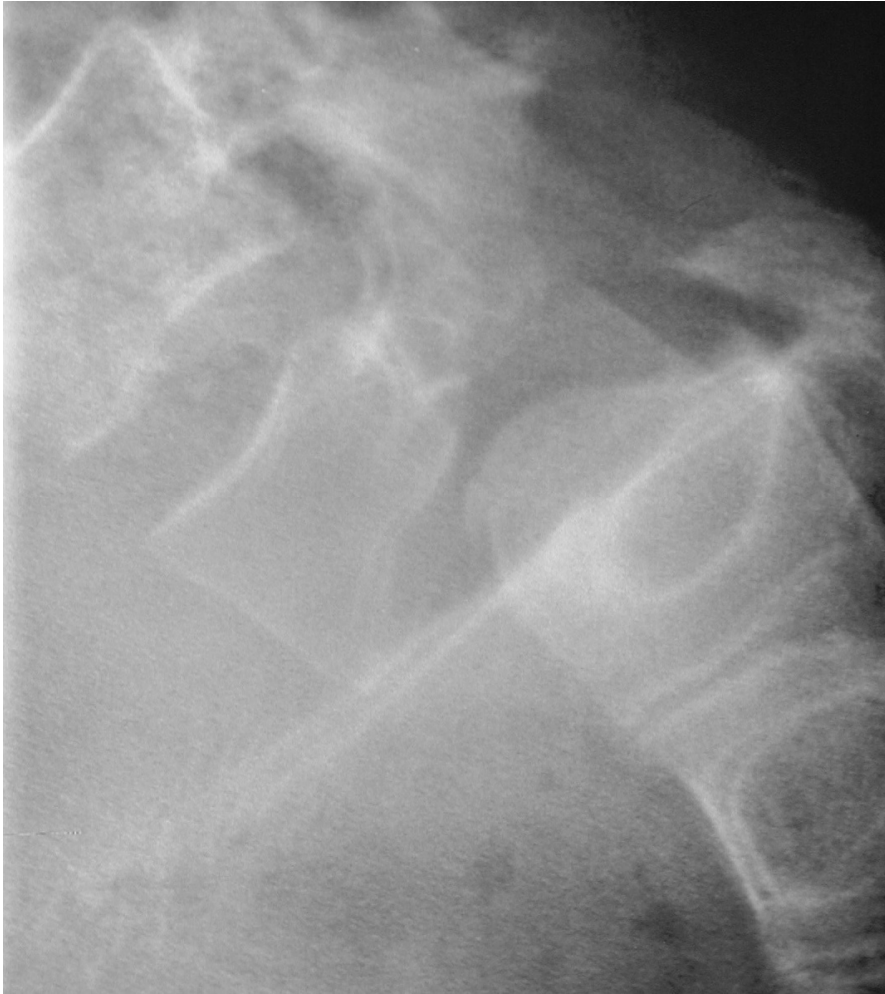


INSTABILITE TRAUMATIQUE

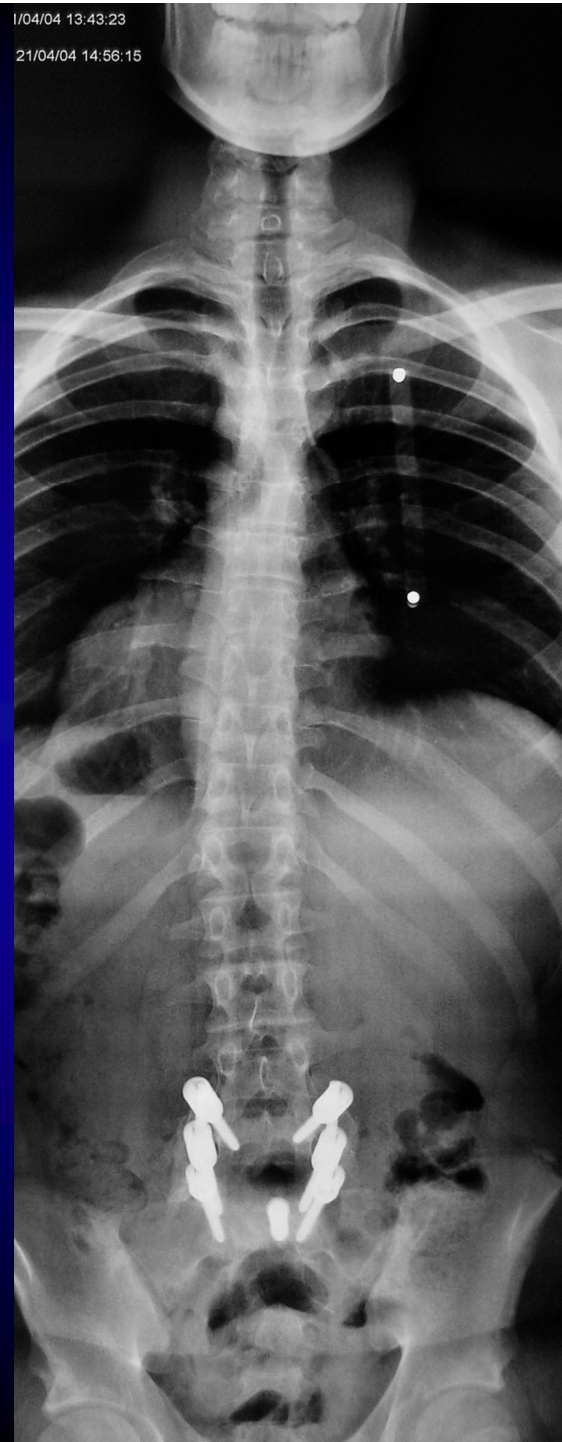
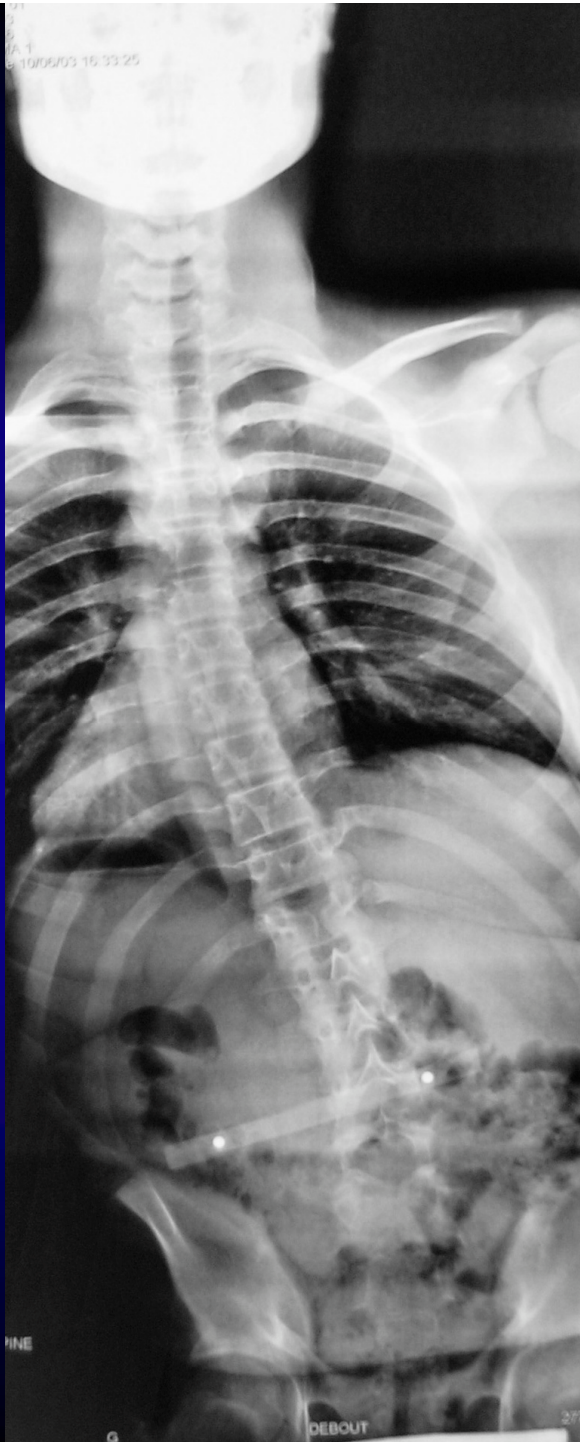


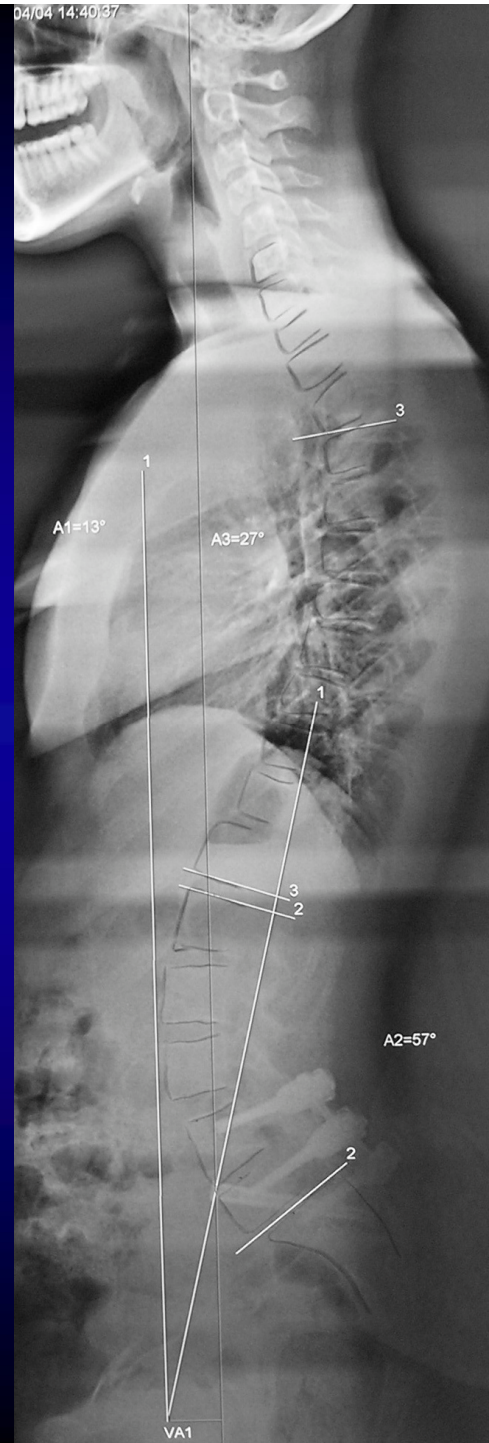
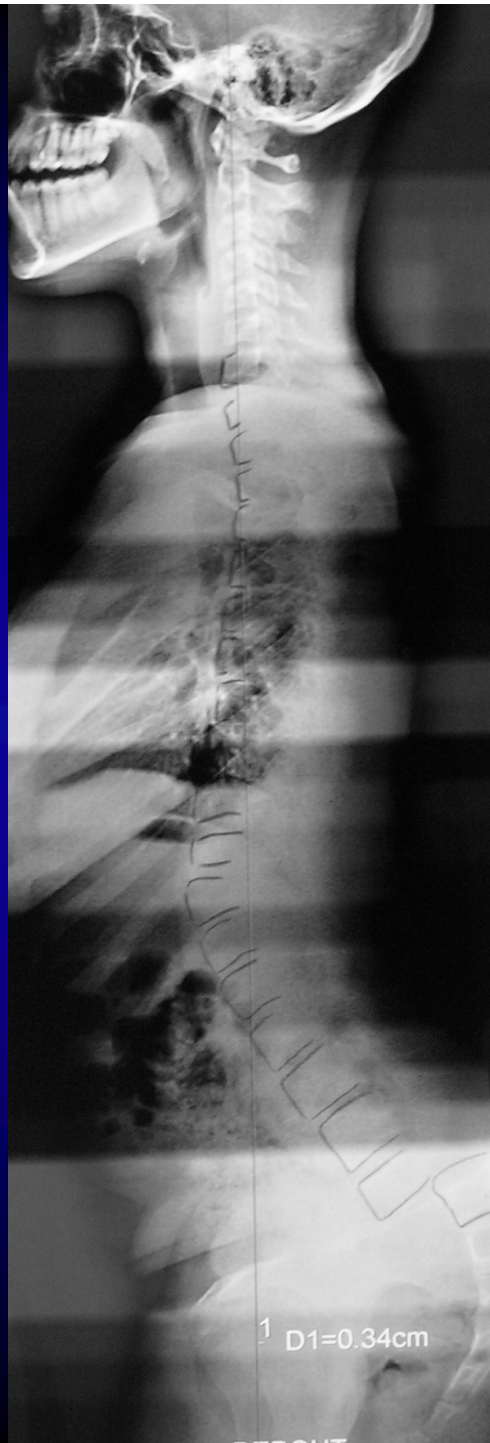




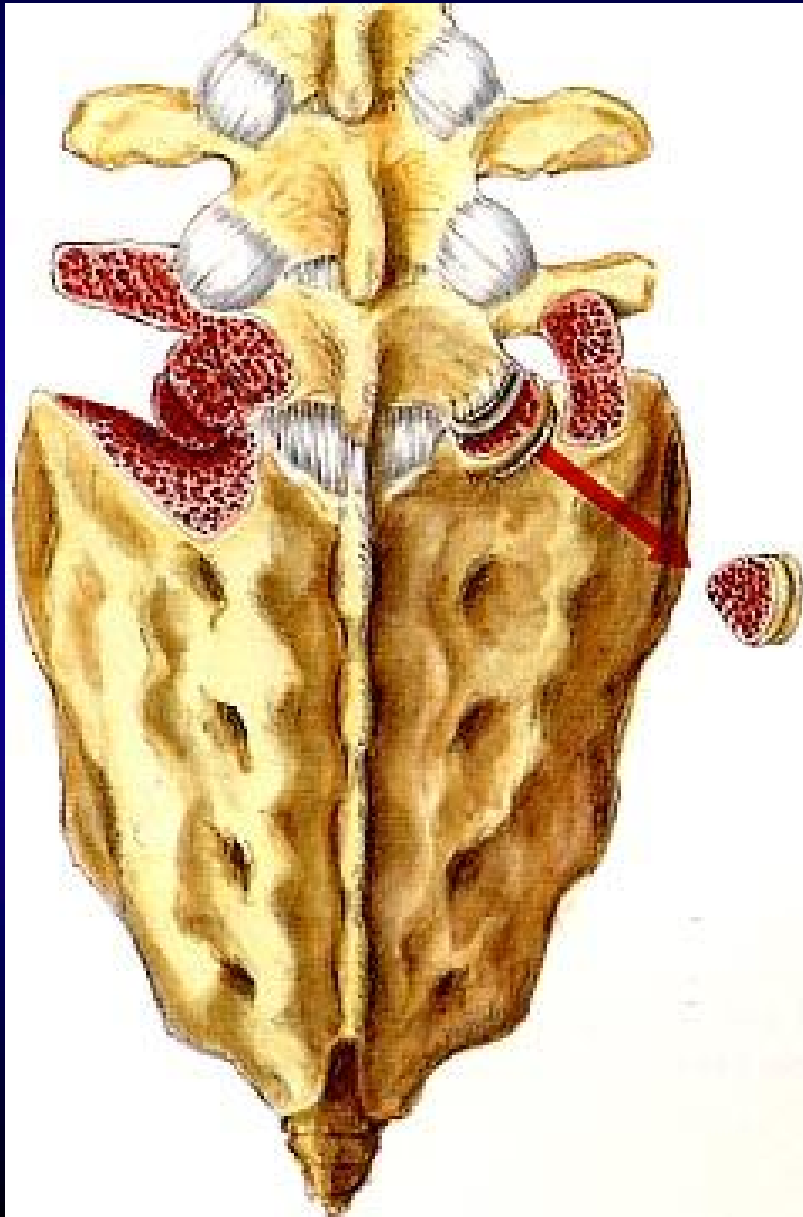


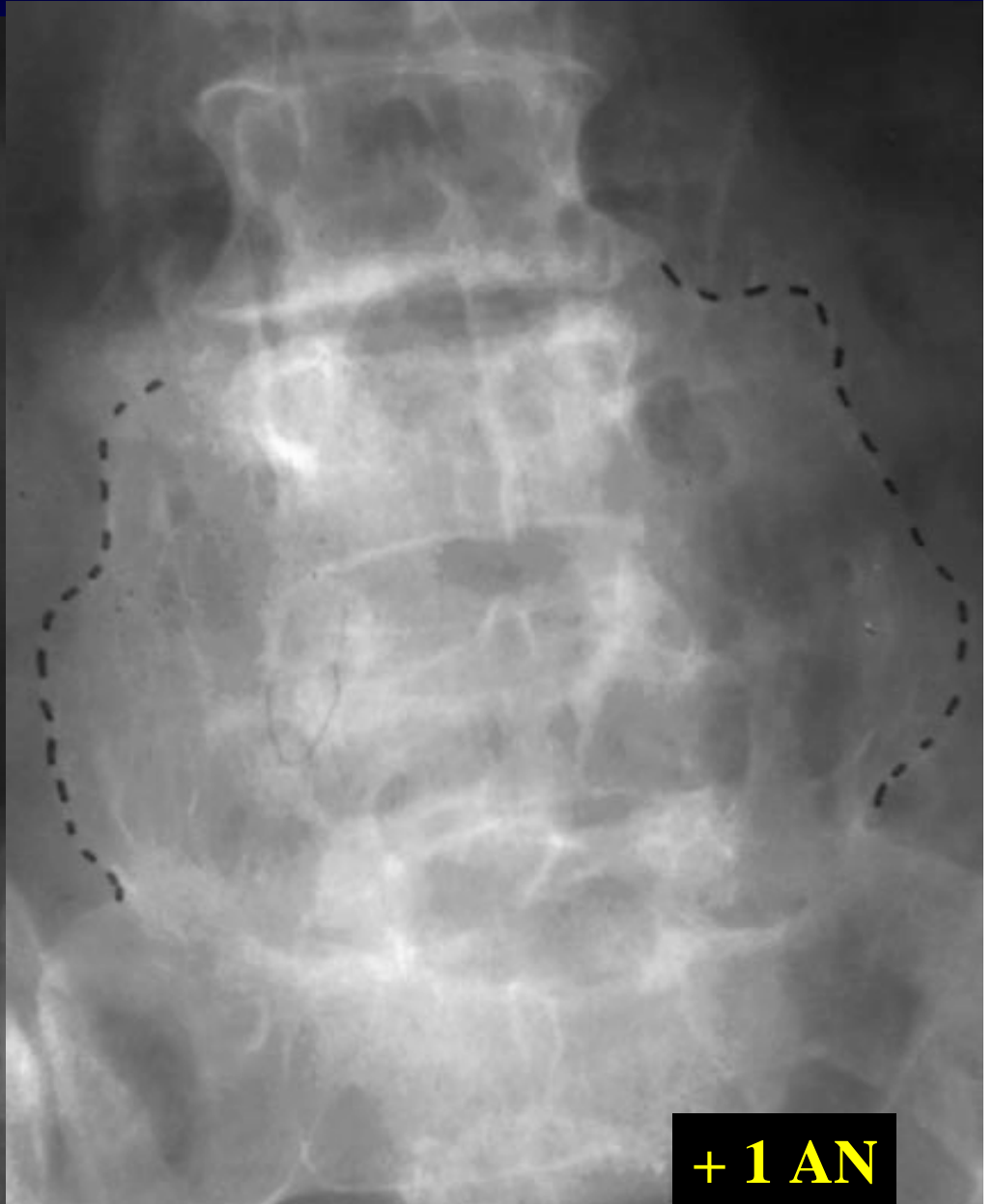
INSTABILITE du S.P.L.



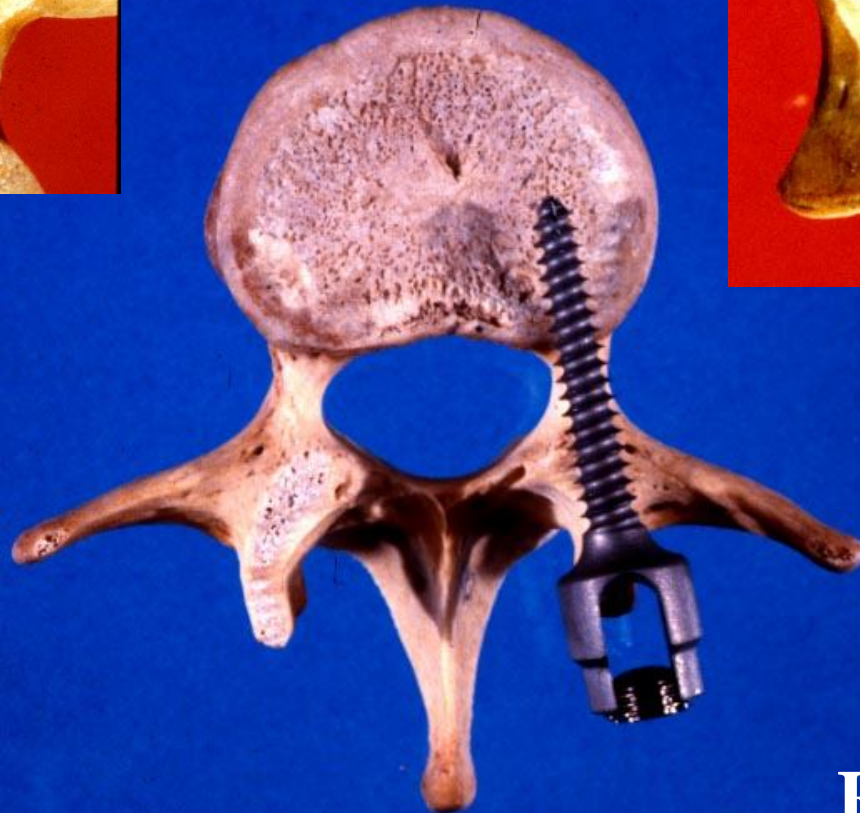
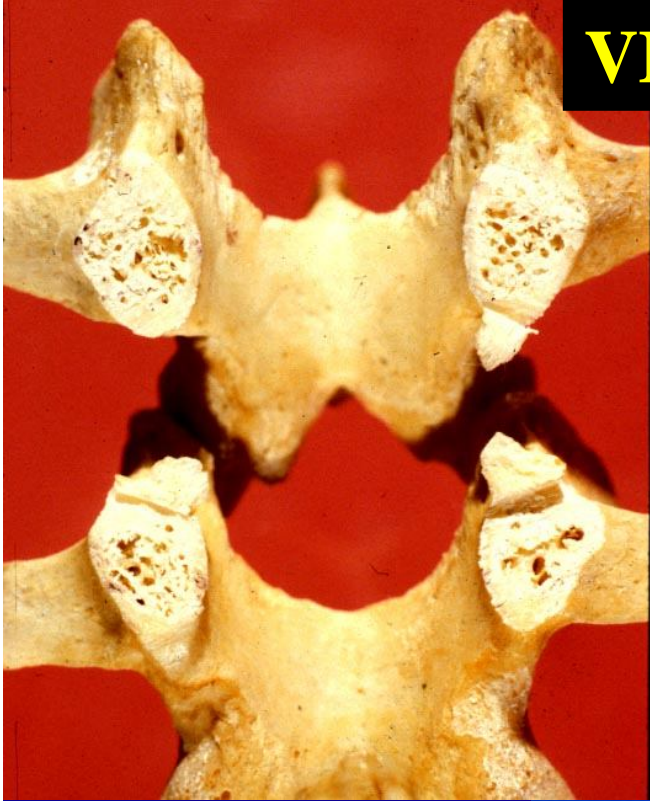


ARTHRODESE POSTEROLATERALE



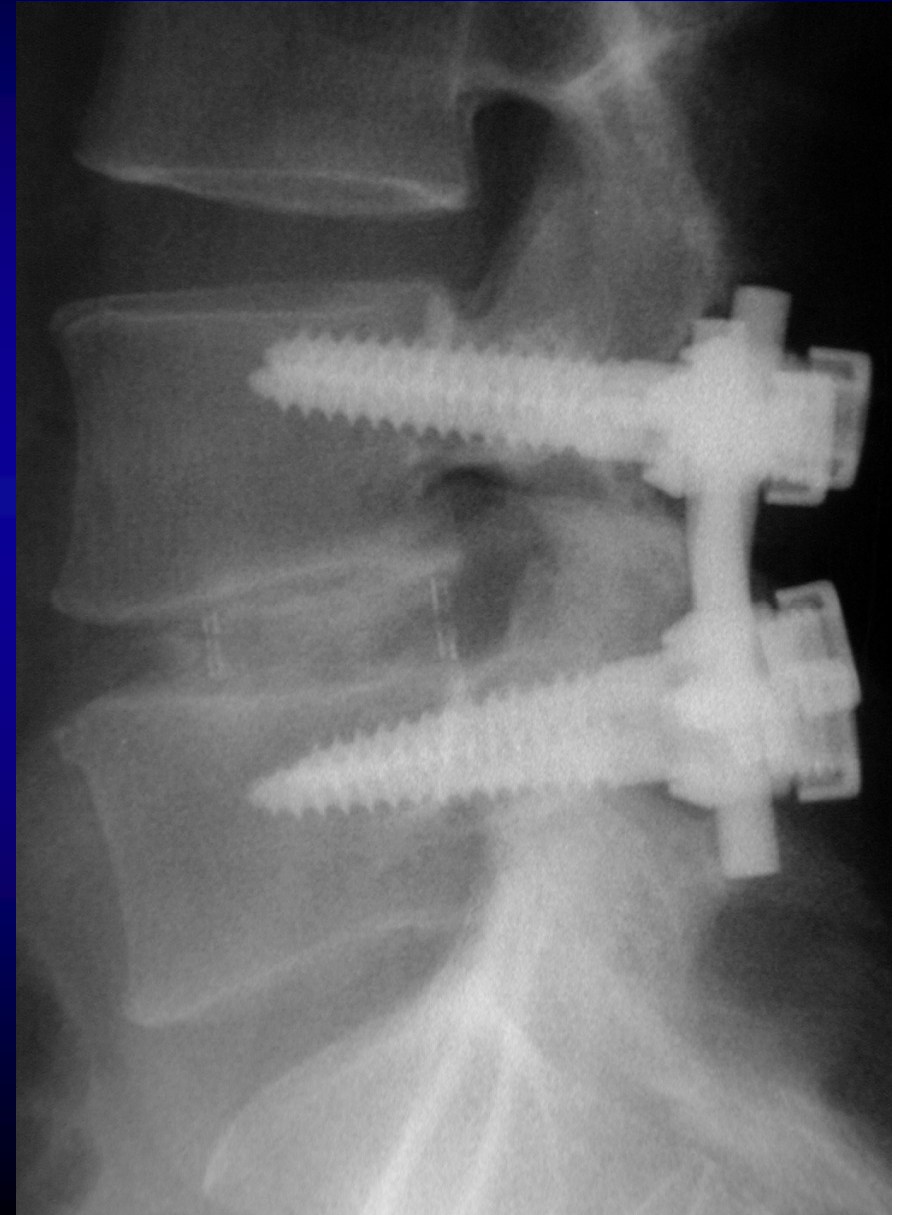
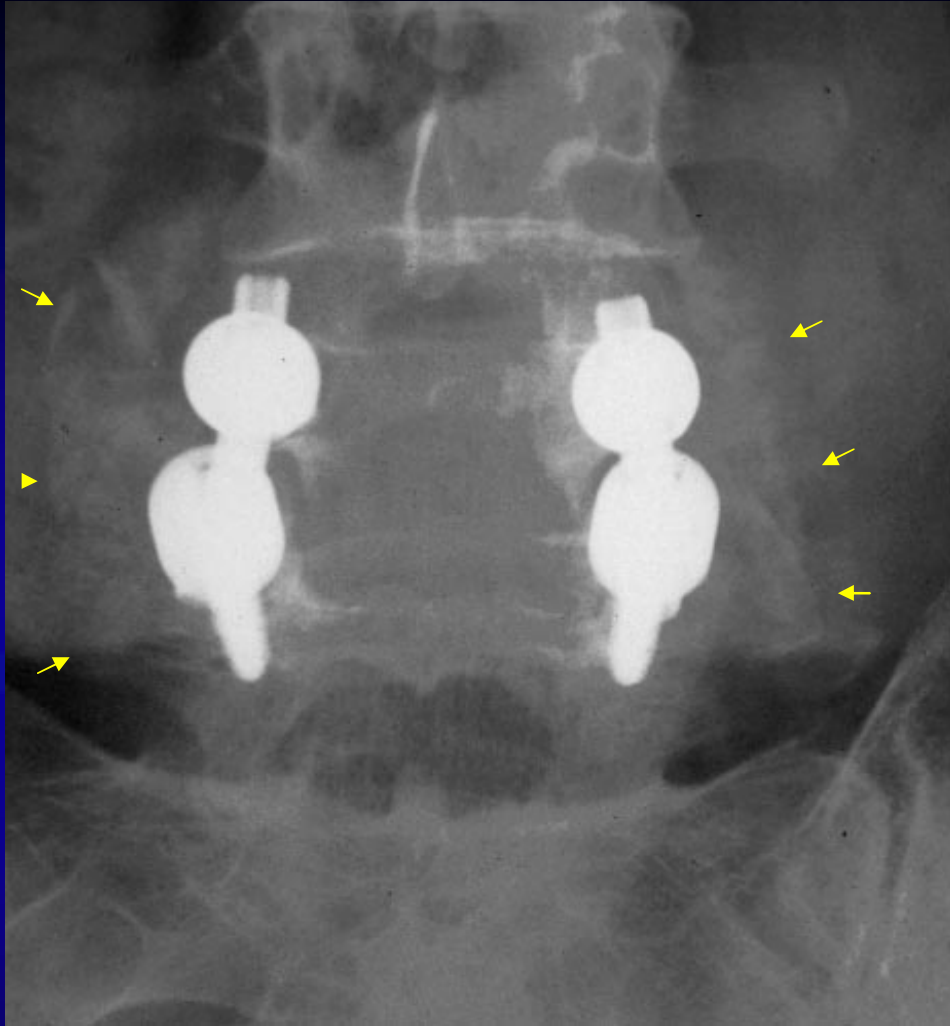


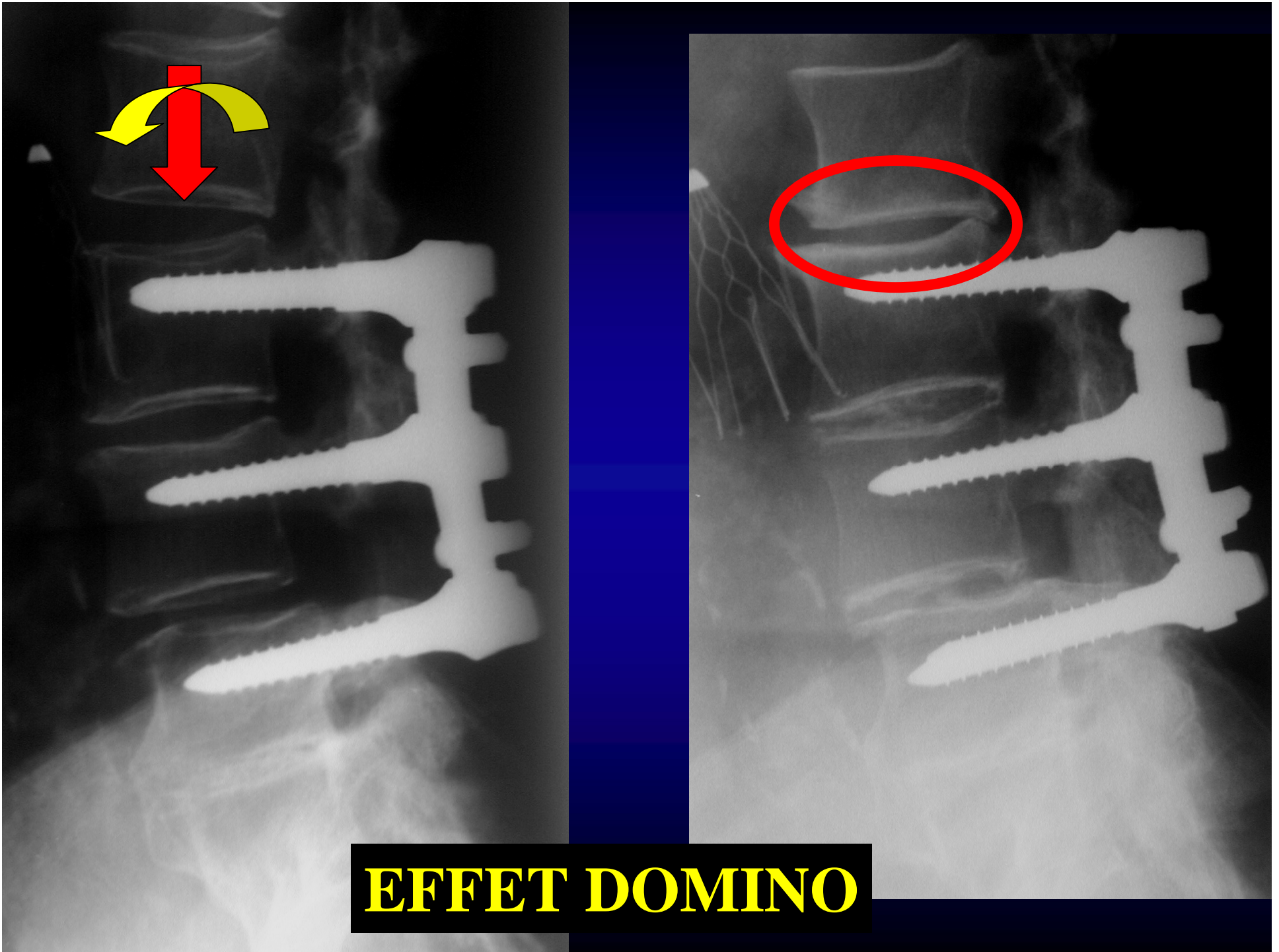
VISSAGE PEDICULAIRE



ROY CAMILLE

CAGES



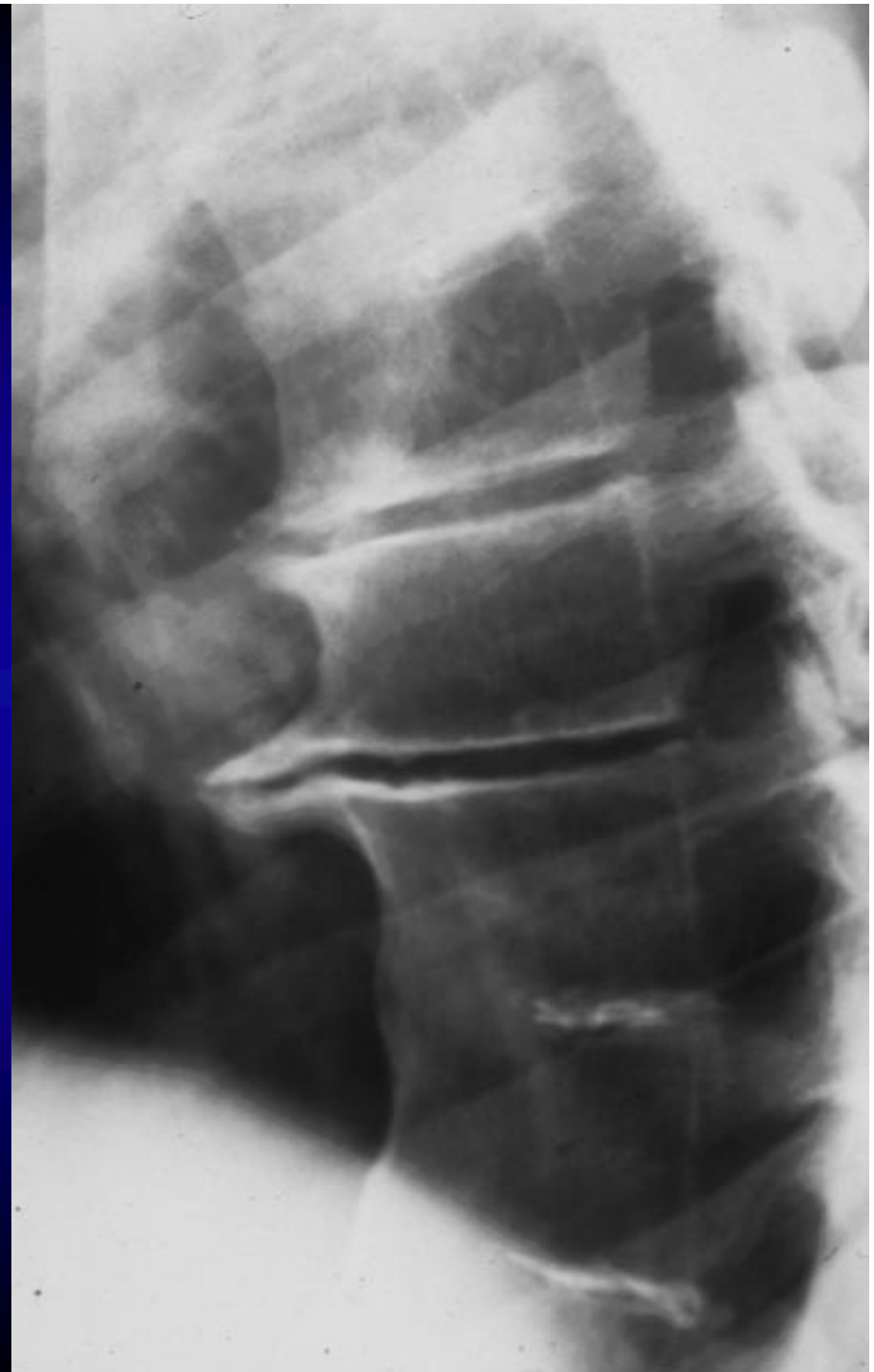


EFFET DOMINO

PATHOLOGIE

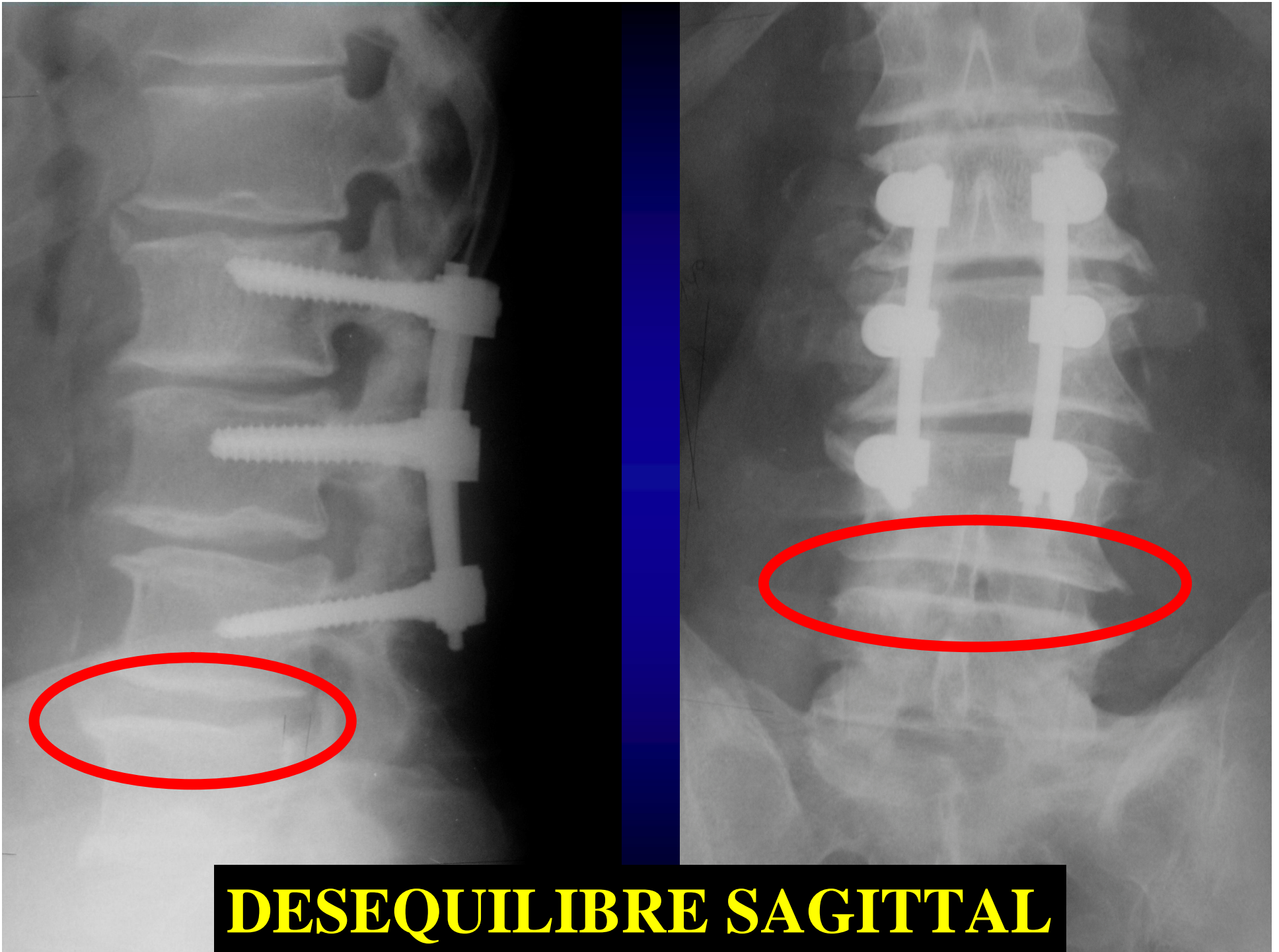
CONGÉNITALE

BLOC VERTEBRAL



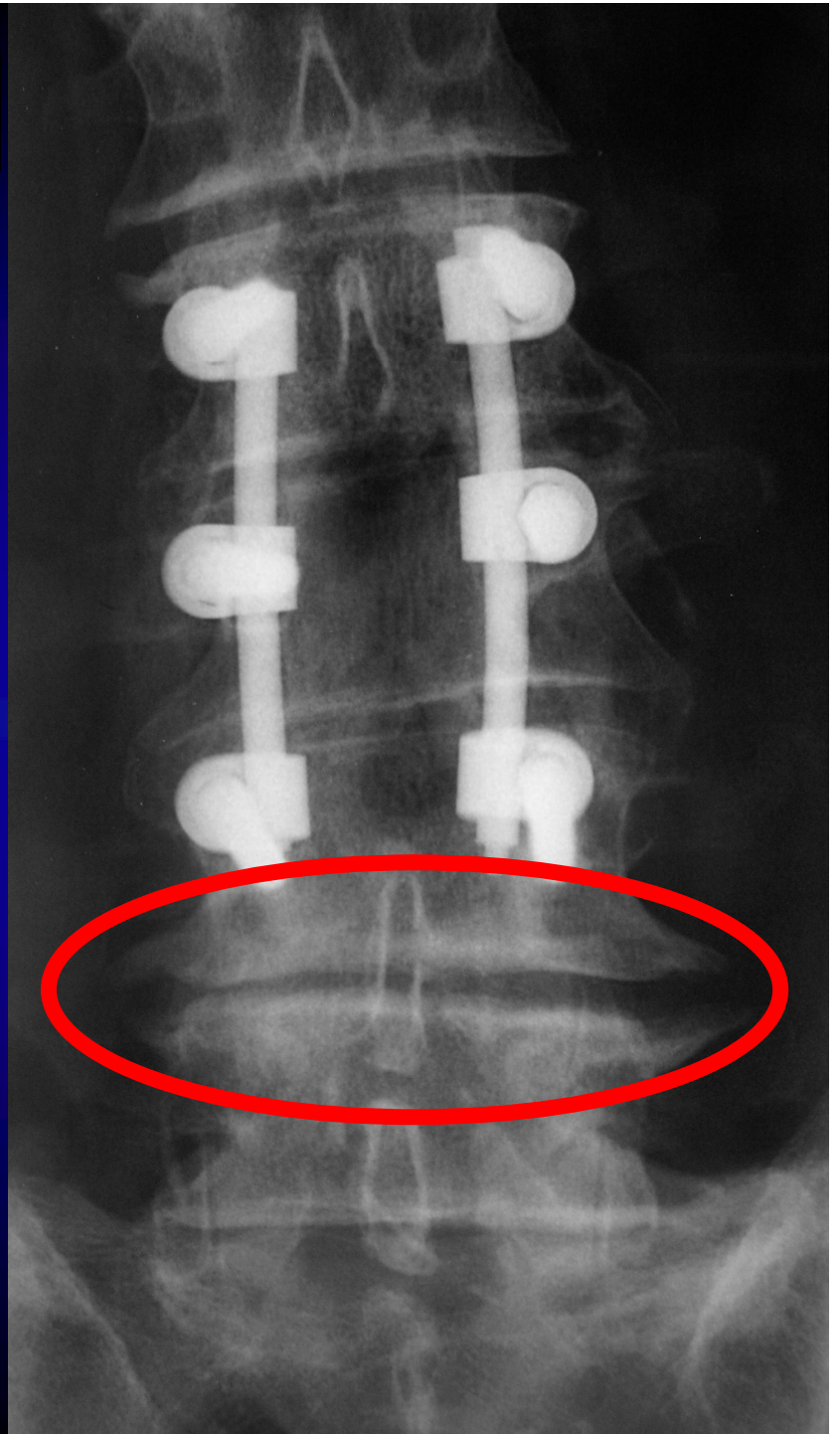
ANOMALIE de CHARNIERE LOMBOSACREE



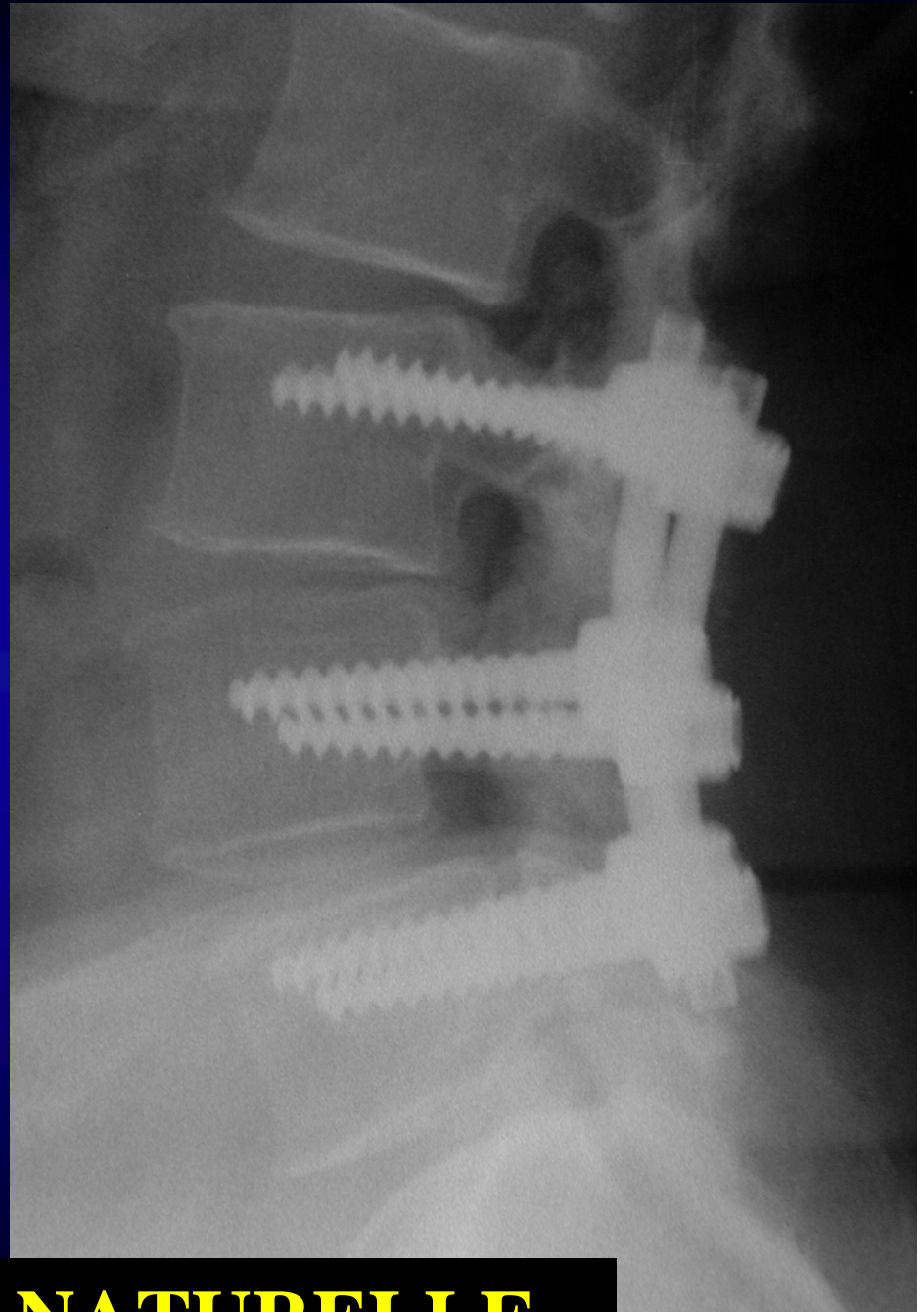
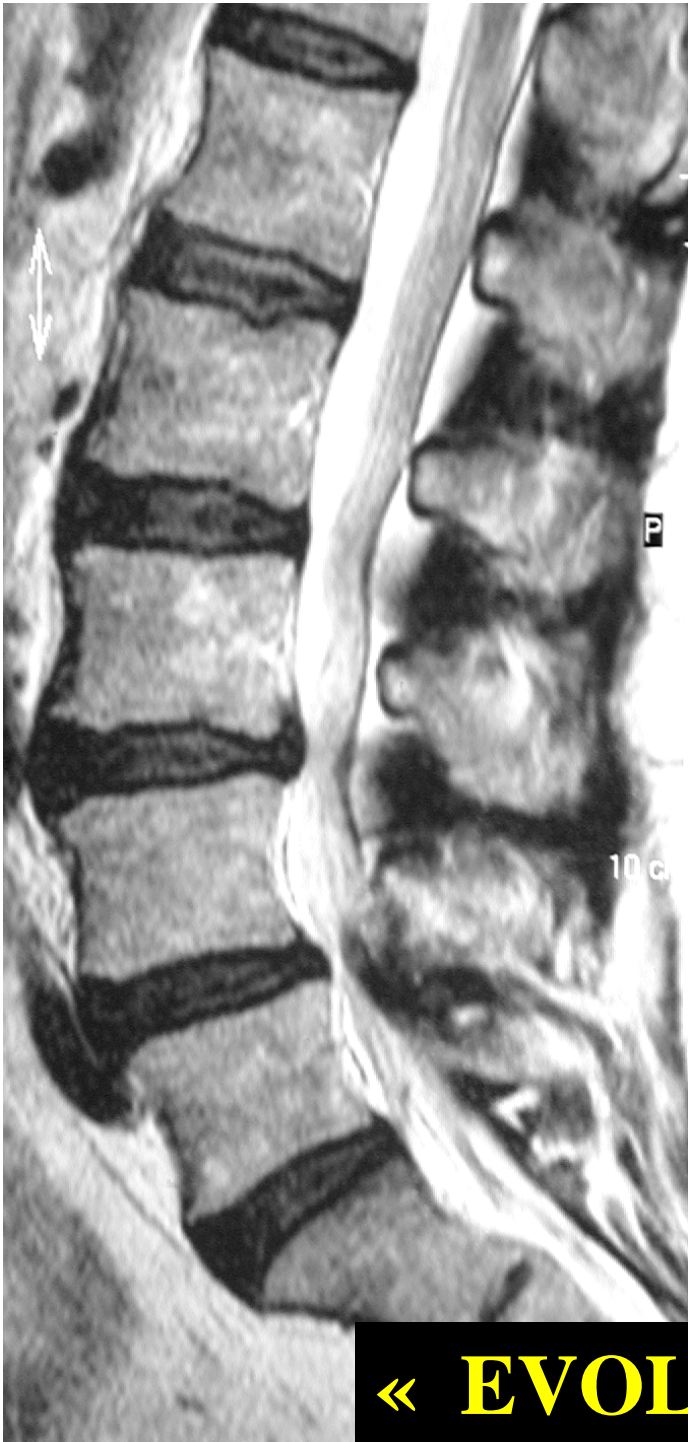


DESEQUILIBRE SAGITTAL

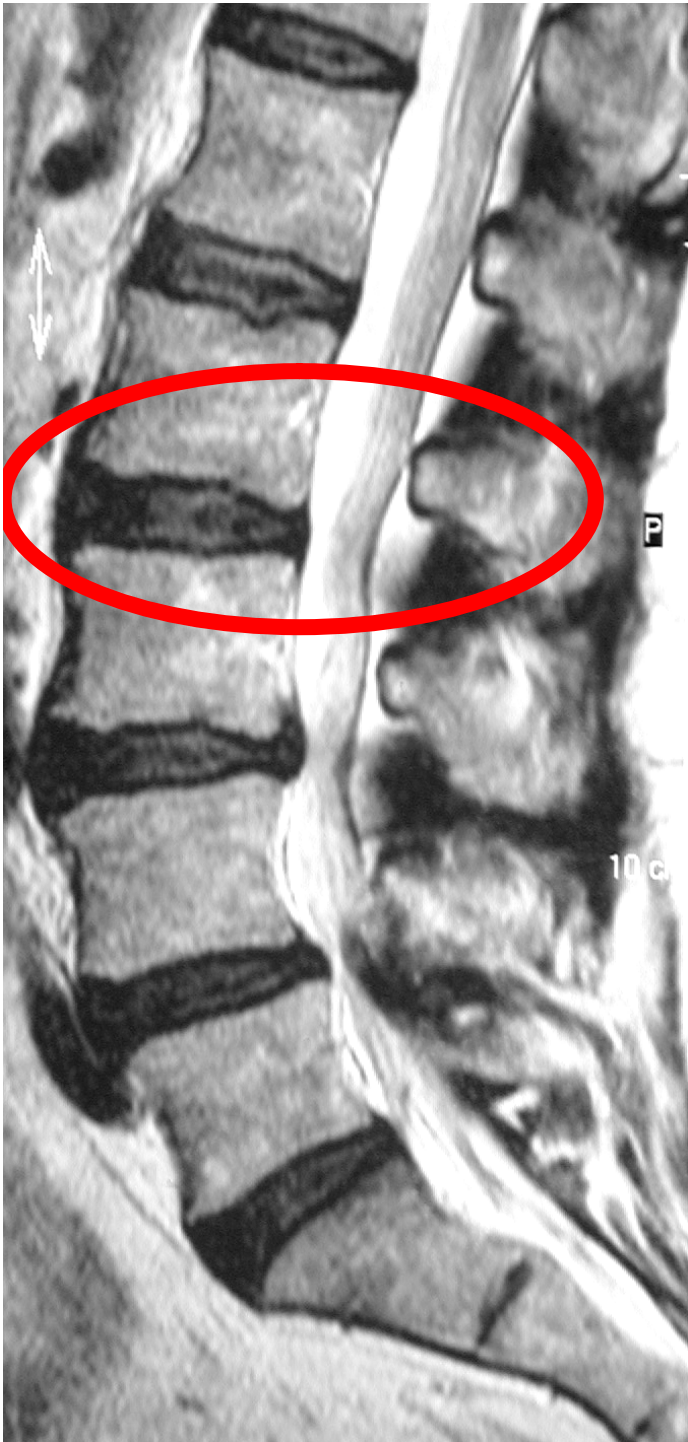
+ 5 ANS



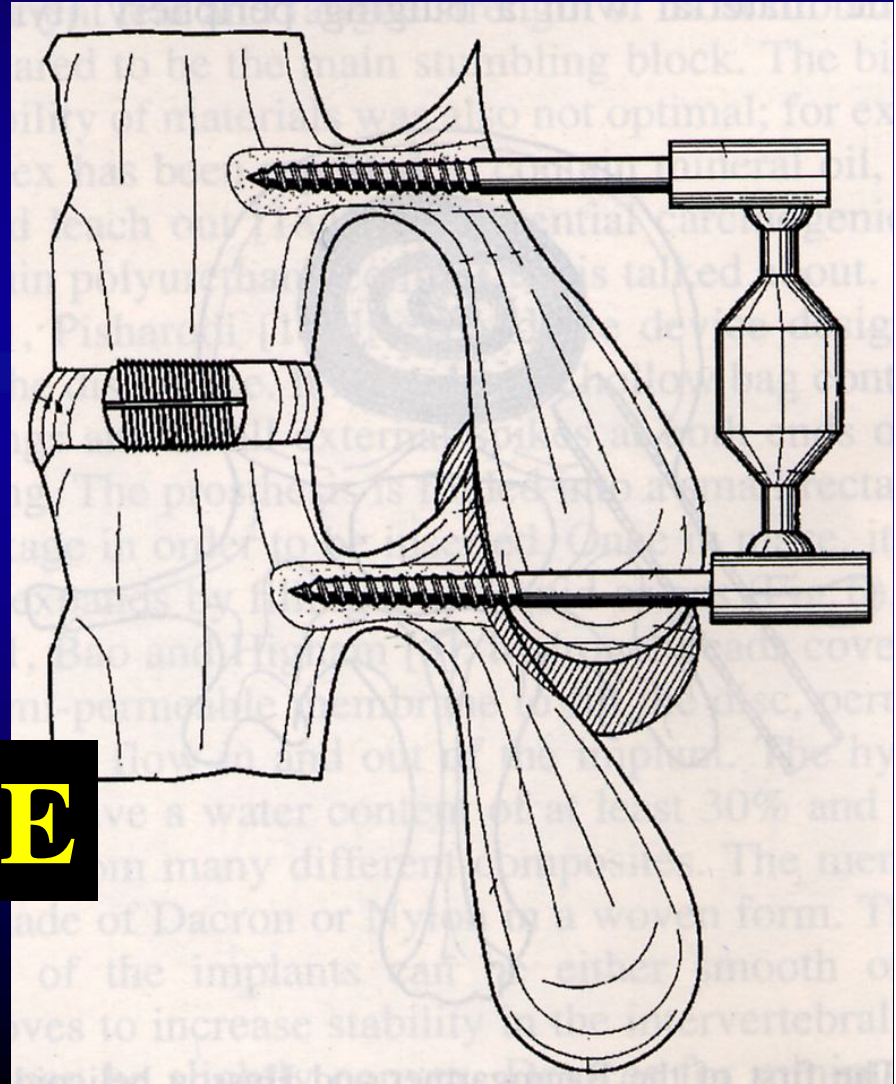
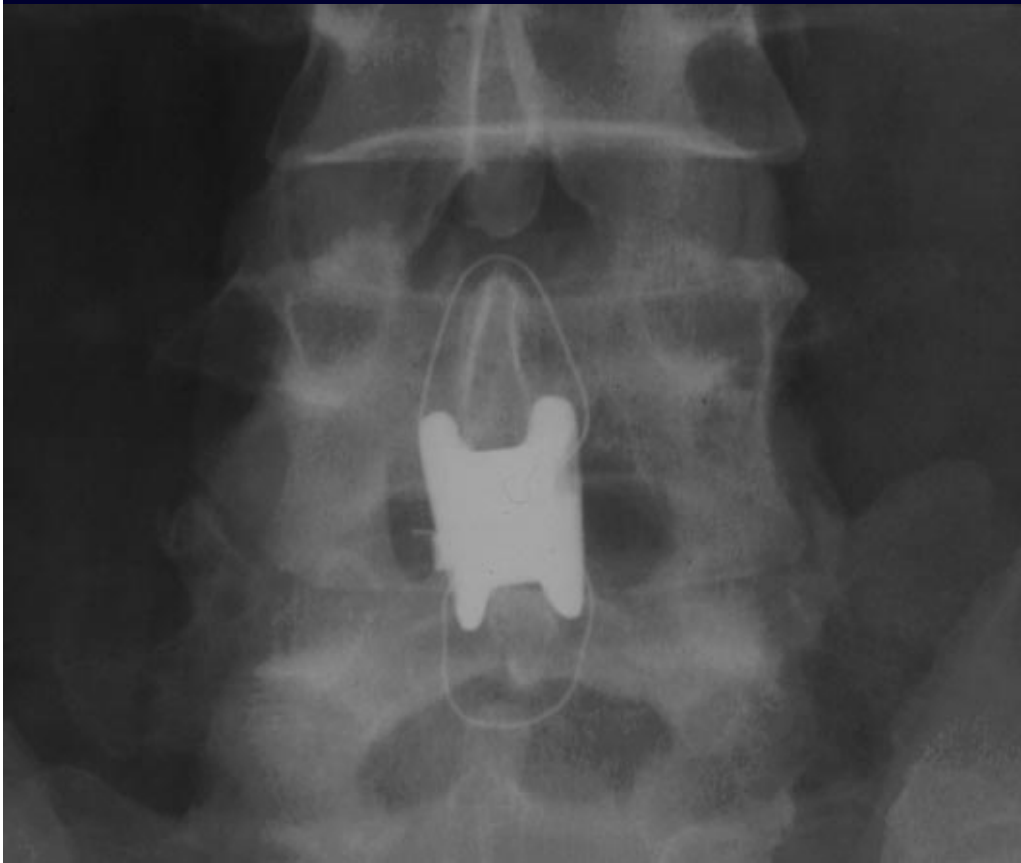




« EVOLUTION NATURELLE »



LIGAMENT



FIXATION SOUPLE

ou MOBILE

FEMME de 45 ANS

DISCOPATHIE

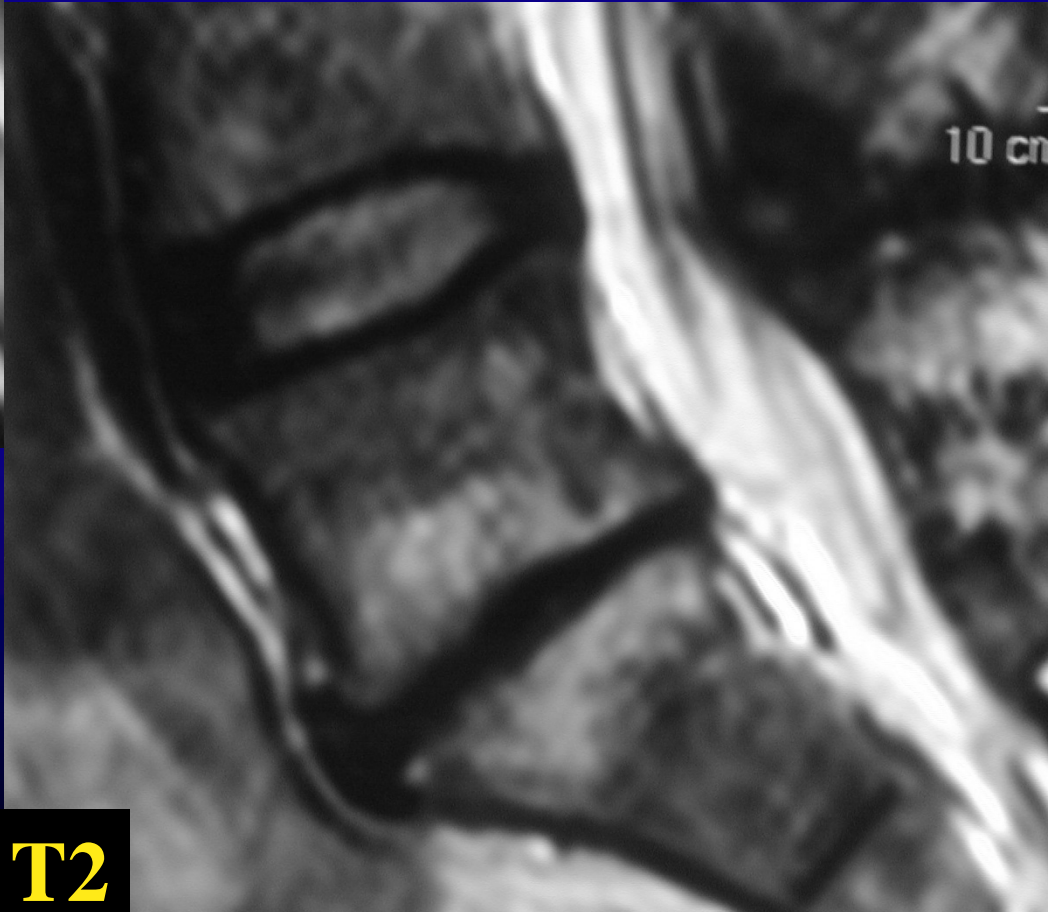
RAPIDEMENT

DESTRUTRICE

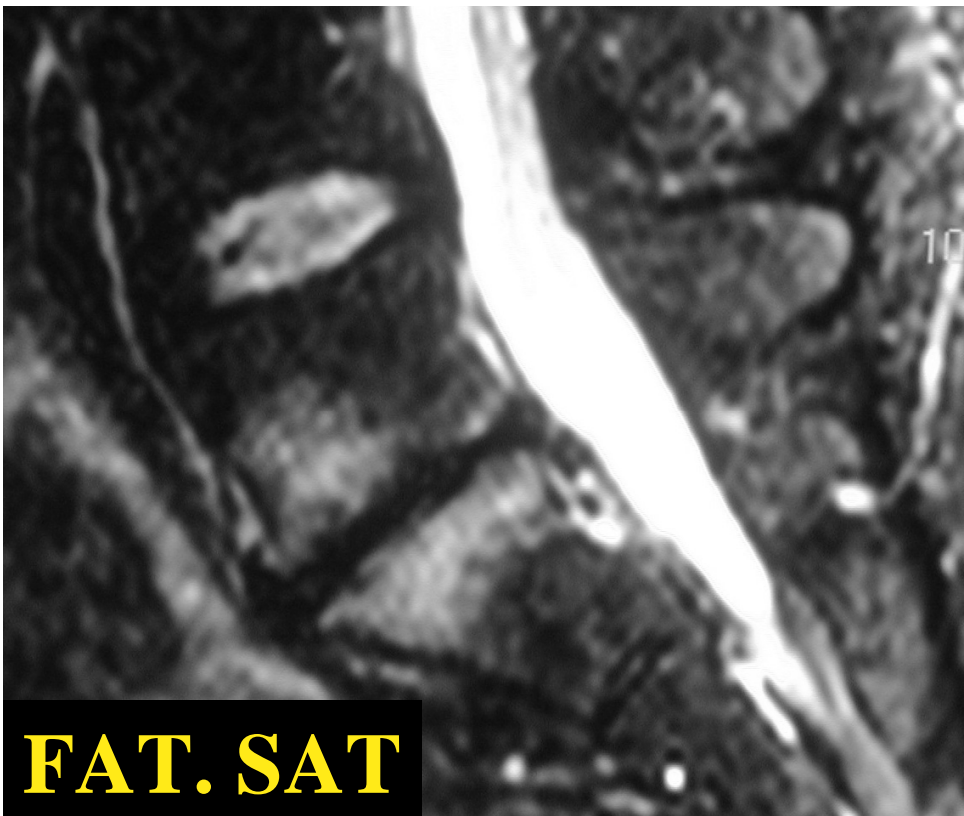




T1



T2

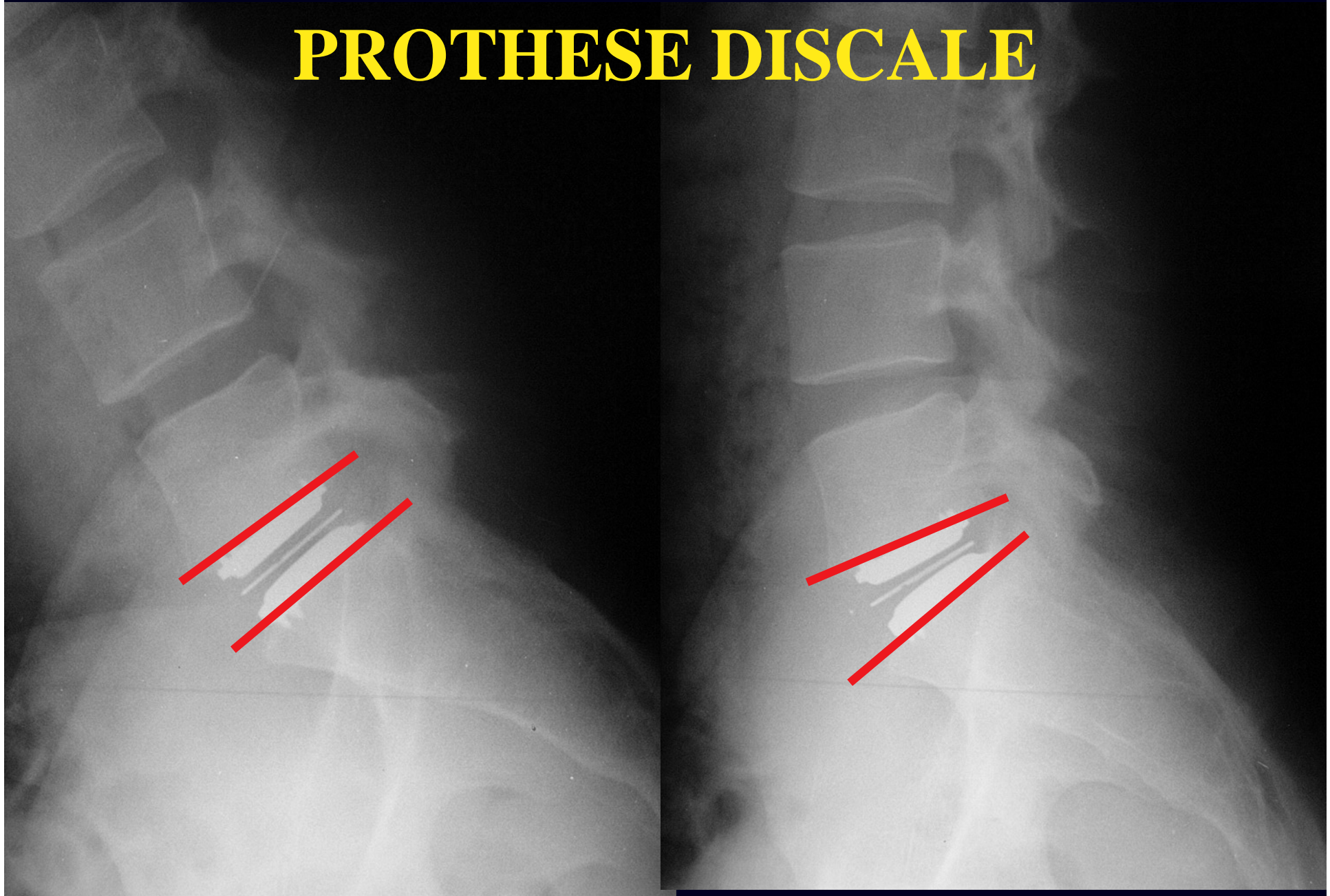


FAT. SAT



LESION ISOLEE

PROTHESE DISCALE





D



ANKYLOSE



PTH

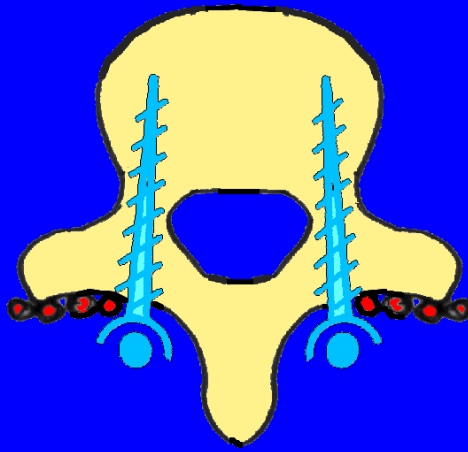


A g e n c e **N** a t i o n a l e
d' **A** c c r é d i t a t i o n e t
d' **É** v a l u a t i o n e n **S** a n t é

COMMENT MARCHE LA CHIRURGIE ?

- **EFFET PLACEBO « FORT »**
- **DENERVATION POSTERIEURE**
- **EFFET MECANIQUE (ANTIPISTON)**

17 patients



PRE-OP

SP
SL
FoV 300
-210 75

VITAL (Spine 2003)

6 MOIS POST-OP



17 MODIC 1

4 MODIC 0

13 MODIC 2



T1 POSTOP

MODIC 1

ARTHRODESE

INSTRUMENTEE

POSTERIEURE

HISTOIRE

NATURELLE

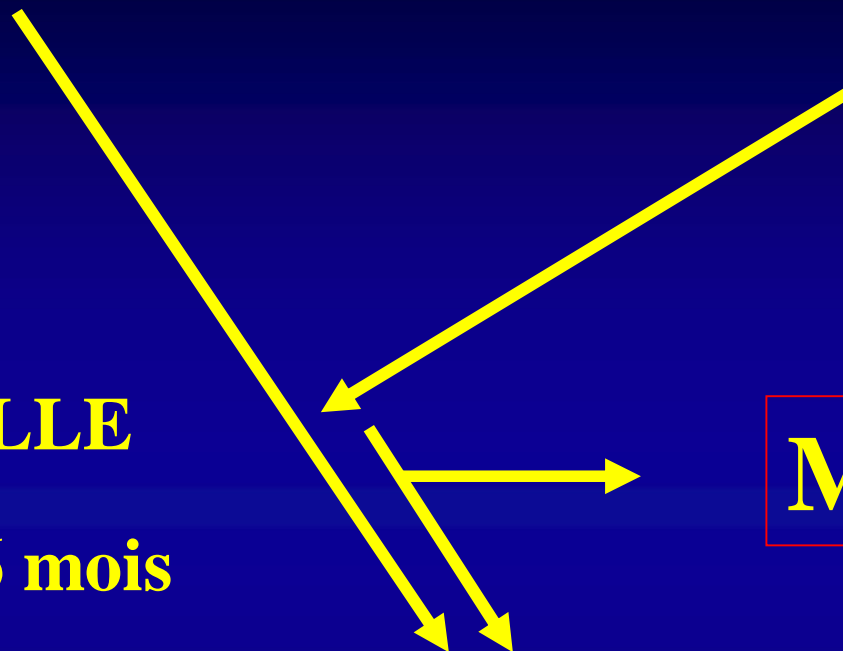
14 à 36 mois

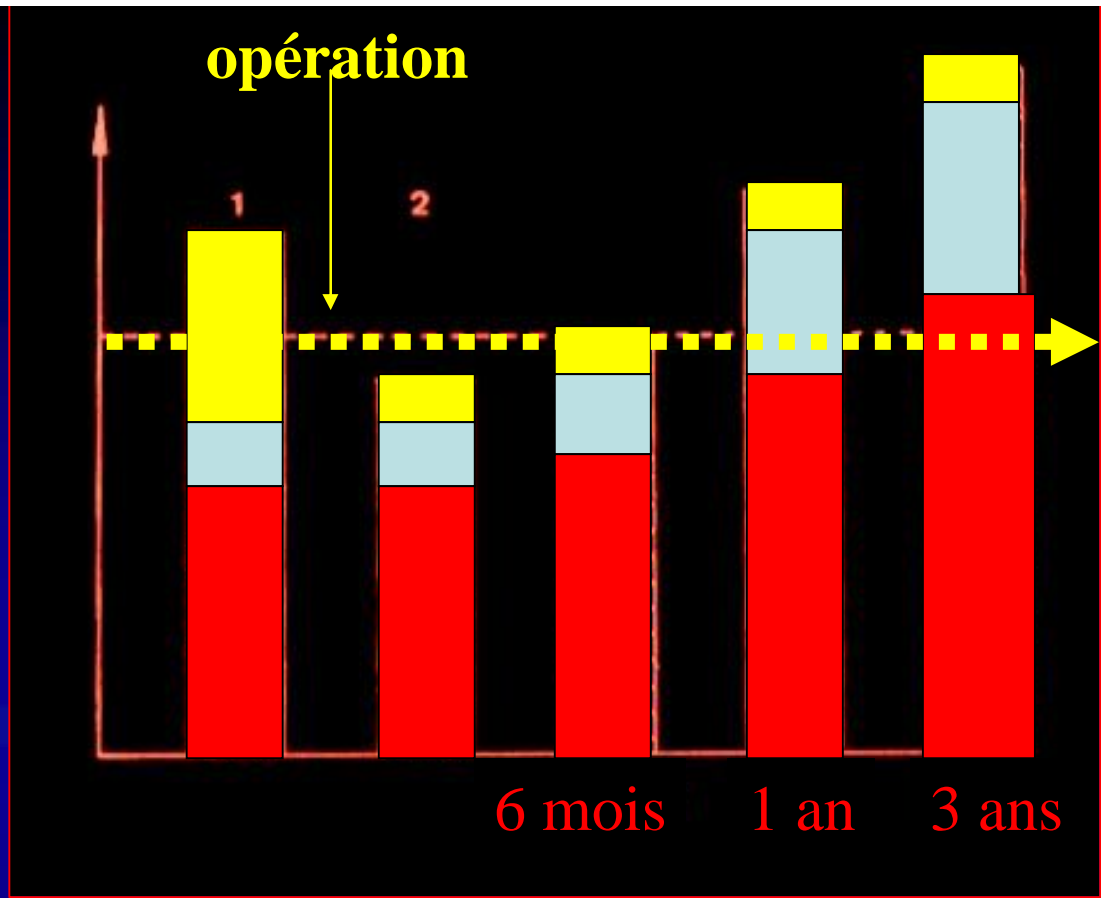
MODIC 0

MODIC 2

HISTOIRE NATURELLE ?

MODIC 3





A:PROBLEMES ORGANIQUES

B:PROBLEMES PROFESIONNELS □

C:PROBLEMES PSYCHOLOGIQUES

QUELQUES CONCLUSIONS ...



. MEFIANCE vis à vis de CERTAINS CONCEPTS BIOMECANIQUES

- **L.C.=SYMPTOME COMPLEXE qui ne peut avoir UN TRAITEMENT UNIQUE**

- **CHIRURGIE la plus CONSERVATRICE possible: SELECTION +++**

- **PRISE en CHARGE MULTIDISCIPLINAIRE et ...**

CONCERNEE

REINSERTION SOCIOPROFESSIONNELLE

MEDECIN « TRAITANT »

ASSISTANTE SOCIALE

LOMBALGIQUE

MEDECIN CONSEIL

MEDECIN du TRAVAIL

