

KLINISCHE UNTERSUCHUNG SCHULTER

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Orthopädische Uniklinik Balgrist

Forchstrasse 340

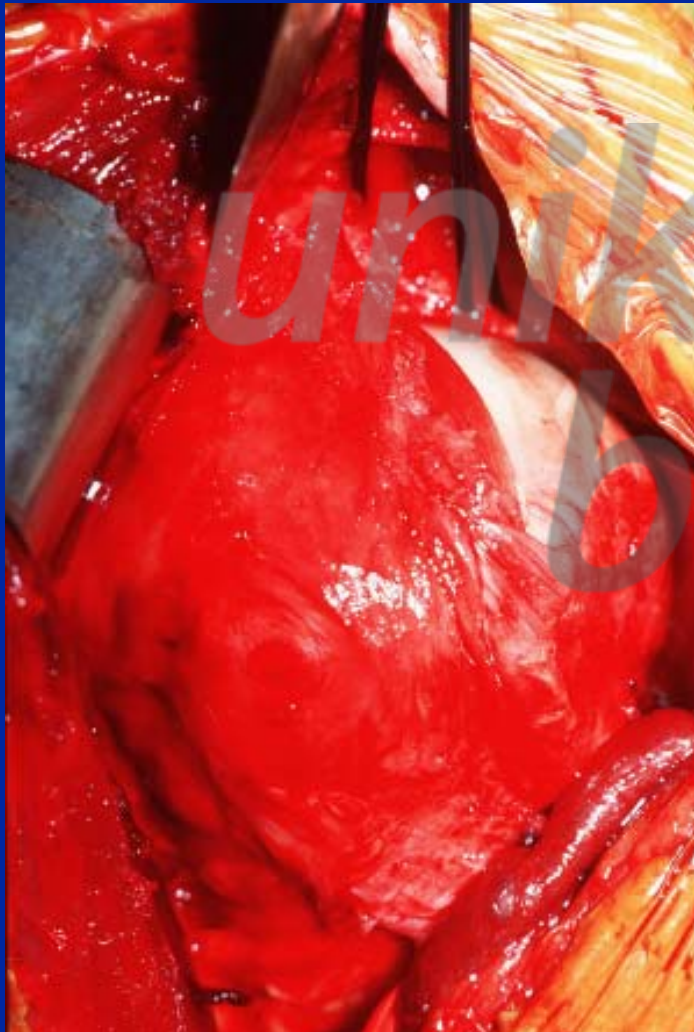
CH-8008 Zürich



ZIELE: SCHULTER

1. Wie identifiziere ich die Struktur, welche das Problem verursacht?
2. Welches sind die häufigsten Erkrankungen (Probleme) dieser Strukturen?

BASIS OF CLINICAL EXAMINATION



you *never* find

- pain or

- instability

in a shoulder...



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**TOM
PLATZ
EINE
NEUE
DIMENSION**

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POTENTIALLY PAINFUL STRUCTURES

- **cervical spine**
- plexus, nerves, vessels
- sterno-clavicular joint
- clavicle
- acromio-clavicular joint
- subacromial space, cuff
- gleno-humeral capsule
- glenohumeral joint
surface



CERVICAL SPINE: SEGMENTAL REPRESENTATION OF ROOTS

| Segment | Dermatome | Myotome | Sclerotome |
|---------|----------------|--|--|
| C4 | shoulder | trapezius levator scap. | clavicle |
| C5 | arm → wrist | deltoid biceps scaleni pectorals rhomboids | med. scapula s.-c. joint a.-c. joint ant. humerus |
| C6 | thumb | pron. teres supinator brachioradialis | scapula ellbow radius meta I,II |

POTENTIALLY PAINFUL STRUCTURES

- plexus, nerves, vessels

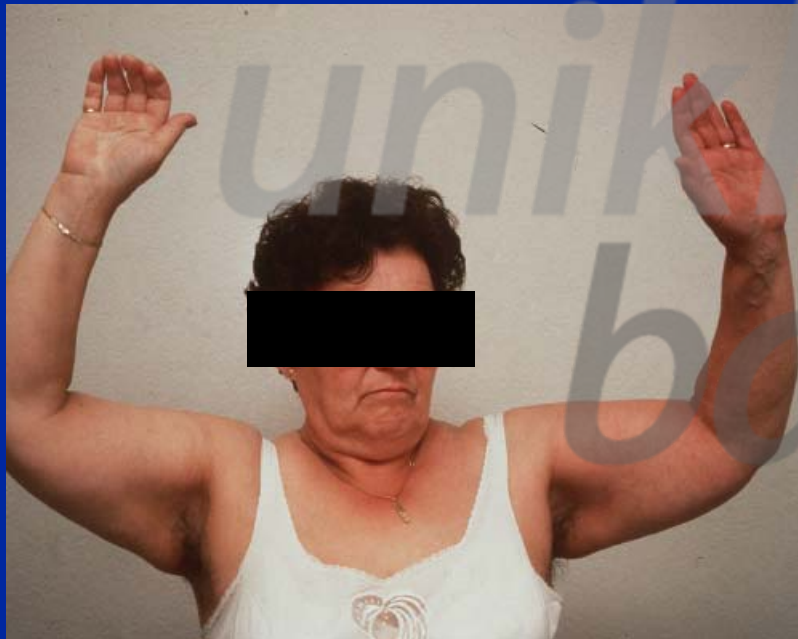


THORACIC OUTLET SYNDROME (TOS)

history

- trauma (frequent)
- pain (head, neck, arm)
- paresthesias

pain on palpation
(Morley)



functional tests
(Roos)

NERVE LESIONS

- accessory
- long thoracic
- suprascapular
- axillary



NERVE LESIONS



NERVE LESIONS

- accessory
- long thoracic
- **suprascapular**
- axillary



INFRASPINATUS



TO REMEMBER: NERVE LESIONS

- accessory
- long thoracic
- suprascapular
- **axillary**



POTENTIALLY PAINFUL STRUCTURES

- cervical spine
- plexus, nerves, vessels
- **sterno-clavicular joint**
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A - C JOINT INSTABILITY



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A-C JOINT



A - C JOINT REFERRED PAIN



- pain in trapezius
- pain on palpation
- passive movements
- stress tests

A-C JOINT: SYMPTOMS



Pain directly over joint

Pain upon compression
of joint (night)

Irradiation into neck

A-C JOINT: PHYSICAL FINDINGS



Druckdolenz über
AC Gelenk

Schmerzhafter
“body –cross
test“

A-C JOINT: PHYSICAL FINDINGS



Tenderness over a-c joint

Painful “body –cross test“

Painful a-c arc

A-C PHYSICAL FINDINGS



Tenderness of a-c-
joint

A-C GELENK: THERAPIE



EXZISION DER LATERALEN CLAVICULA



INJECTION OF LOCAL ANESTHETIC INTO A-C JOINT



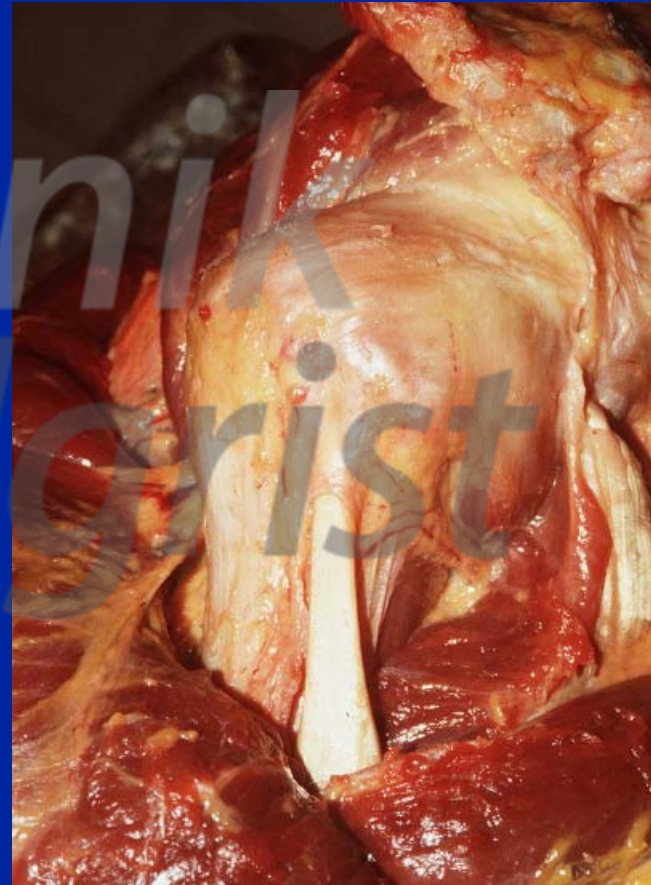
TO REMEMBER: A - C JOINT PAIN



- direct trauma
- pain in trapezius
- pain on palpation
- passive movements
- stress tests

ROTATOR CUFF

- teres minor
- infraspinatus
- supraspinatus
 - (biceps)
- subscapularis



REFERRED PAIN FROM SUBACROMIAL SPACE



REFERRED PAIN

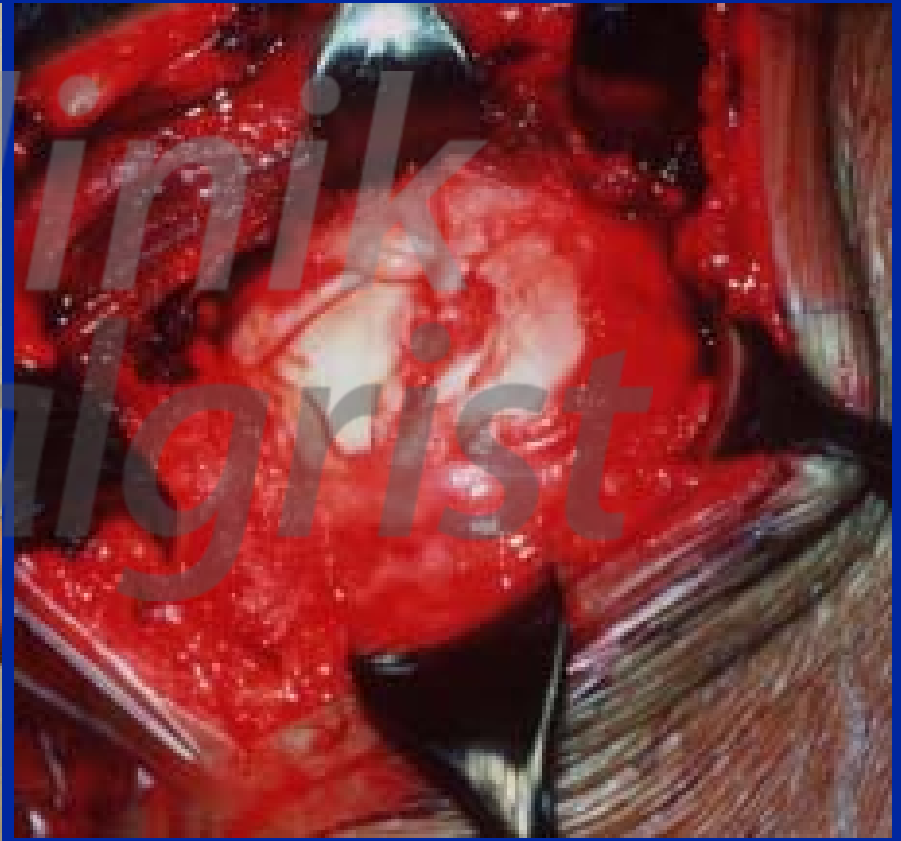


subacromial

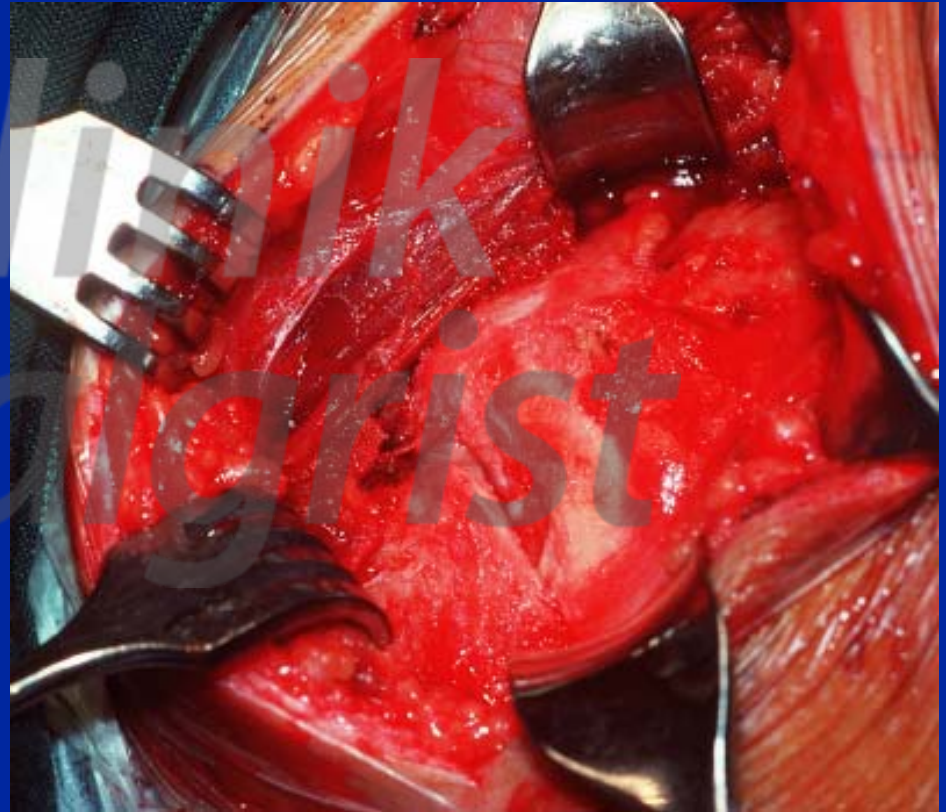


a-c joint

“IMPINGEMENT”



“IMPINGEMENT”



MODIFIED IMPINGEMENT - SIGN



IMPINGEMENT - TEST

(5- 10 ml 1% Lidocaine into subacromial space)



MODIFIED IMPINGEMENT - TEST



FUNCTION OF THE CUFF



SMALL ROTATOR CUFF TEARS



FUNCTIONALLY RELEVANT R.C. TEARS



INFRASPINATUS



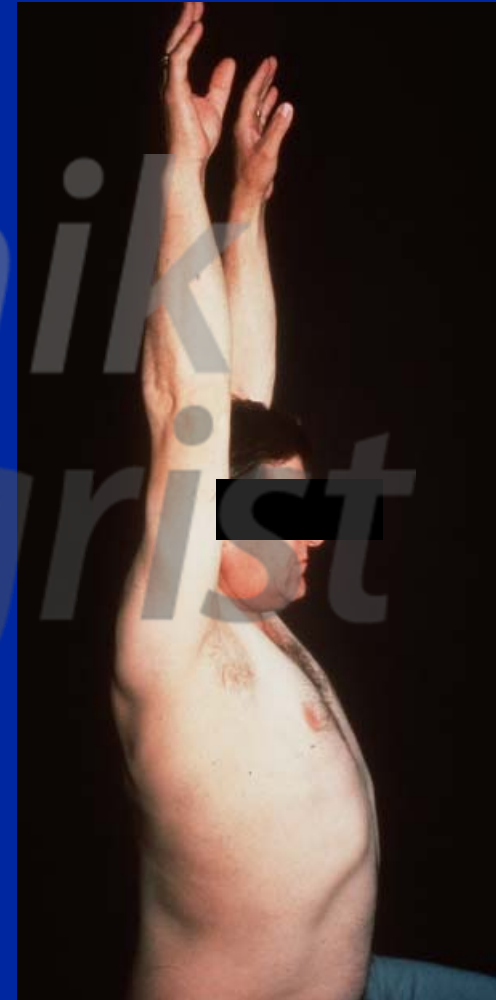
- little pain, loss of active e.r.
- atrophy with intact innervation
- *loss of e.r. strength with arm at the side*

INFRASPINATUS - TESTING

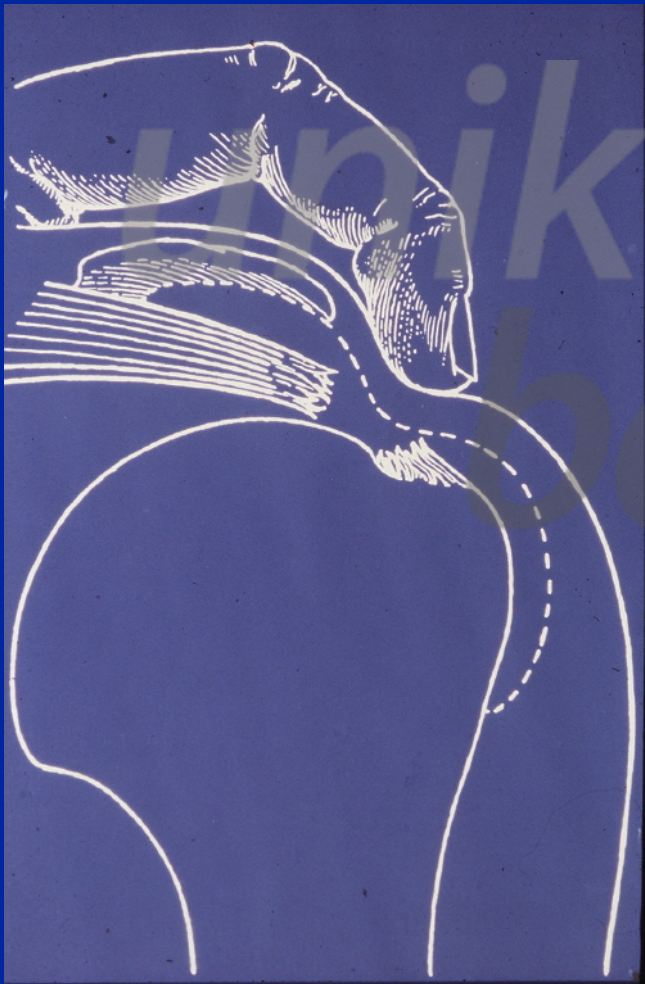


SUPRASPINATUS

- pain at night and overhead
- normal active rom!!!
(> 95% of full thickness tears)
- *weakness of abduction
(plane of scapula)*



PALPATION OF DEFECT IN SUPRASPINATUS



BICEPS



SUBSCAPULARIS

- pain, weakness
arm at side
- **increased
passive e.r.**
- **weakness for i.r.**
(belly press,
lift - off)



BELLY - PRESS TEST



ARTHROSCOPIC ROTATOR CUFF REPAIR

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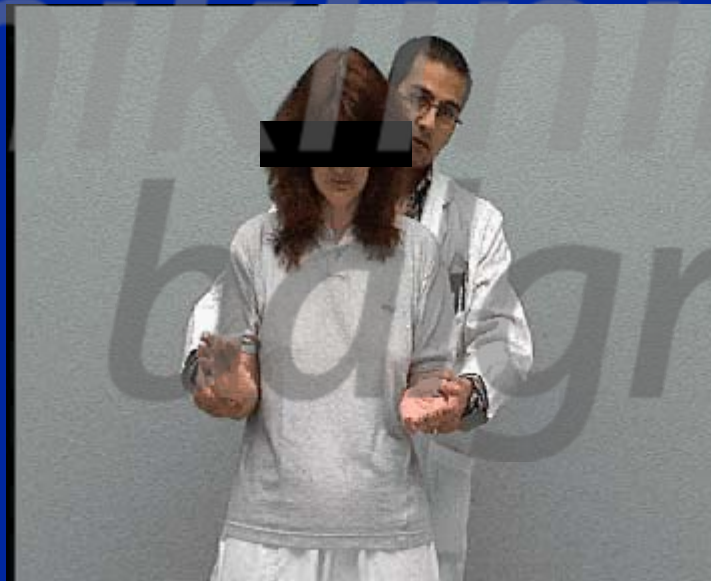
Arthroskopische
Rotatorenmanschetten-Naht



STIFFNESS - FROZEN SHOULDER



STIFFNESS - FROZEN SHOULDER



JOINT DEGENERATION: STIFFNESS



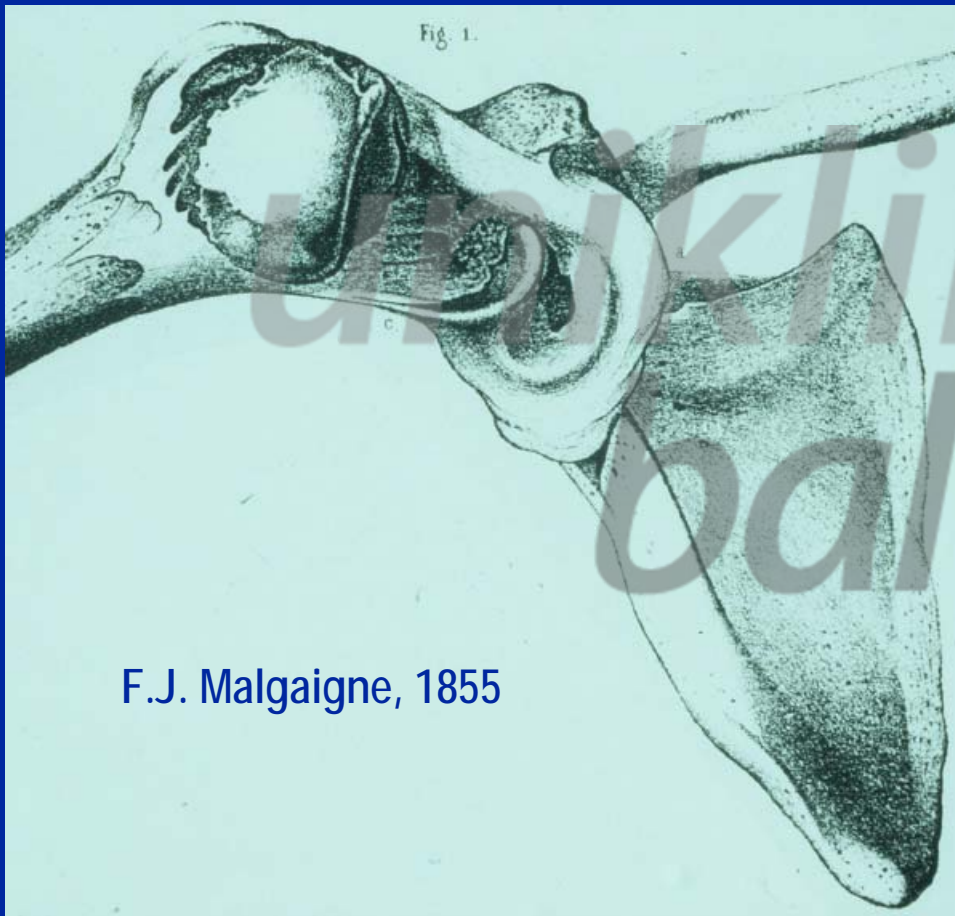
ANTERIOR INSTABILITY

IGHL - lesion

“Bankart - lesion“



THE ESSENTIAL LESIONS



Malgaigne 1855

Hill, Sachs 1940

HYPERABDUCTION TEST (HAT)



INSTABILITY

Hyperabduction Test

for anterior instability



APPREHENSION TEST



INSTABILITIES



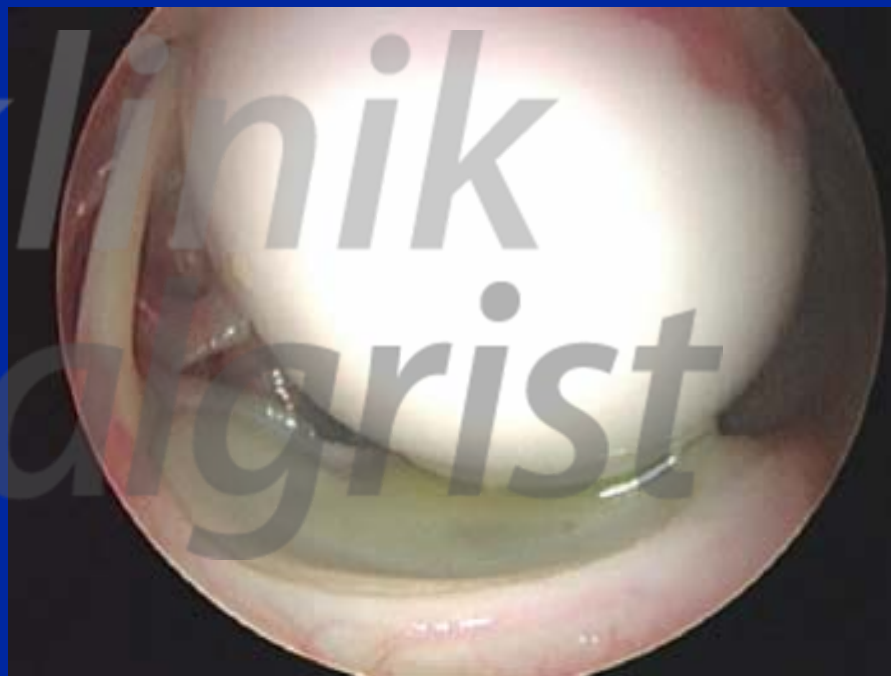


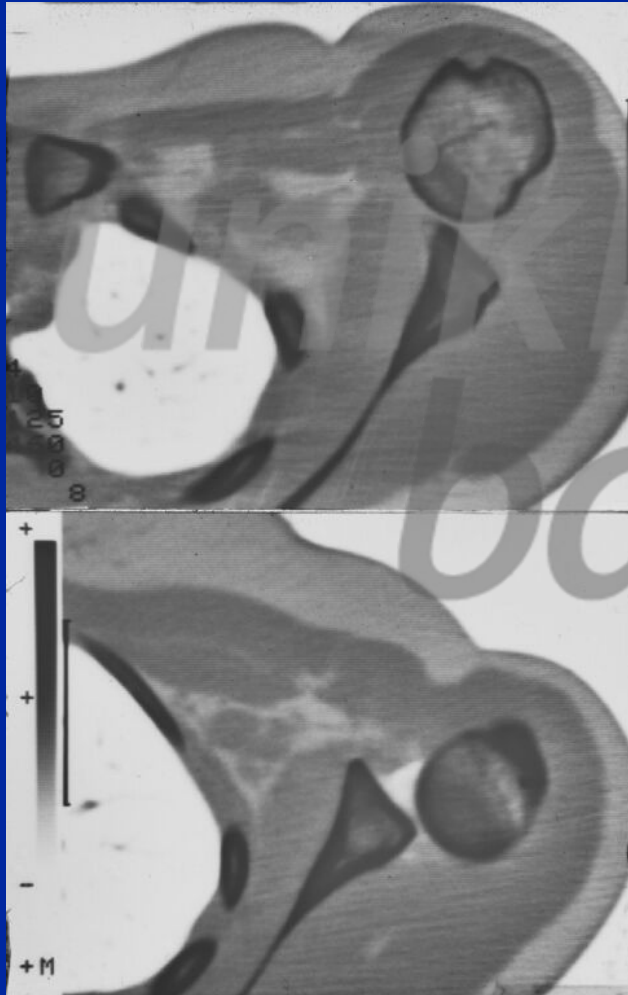
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RECURRENT POSTERIOR INSTABILITY



“MDI?”





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VOLUNTARY “INSTABILITY“

