

Shoulder Conclave

2004

Unusual Compression Neuropathies



Dr. Ashish Babhulkar

D.Orth.,DNB(Orth.),FRCS(Tr.&Orth.)

MCh.(Orth.)(Liverpool,UK.)

Consultant Shoulder & Joint Replacement
Surgeon

Deenanath Mangeshkar Hospital, Pune

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Rehabilitation

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Dr. Sachin Tapasvi

MBBS, MS, DNB, AFAOA

Unusual Compression Neuropathies

- Long Thoracic Nerve Palsy
16 cases
- Suprascapular Nerve Palsy
8 cases
- Kiloh Nevin Syndrome
1 case
- Lower Brachial Plexus Injury
1 case

Case 1 Swimmer – Medial Scapular pain

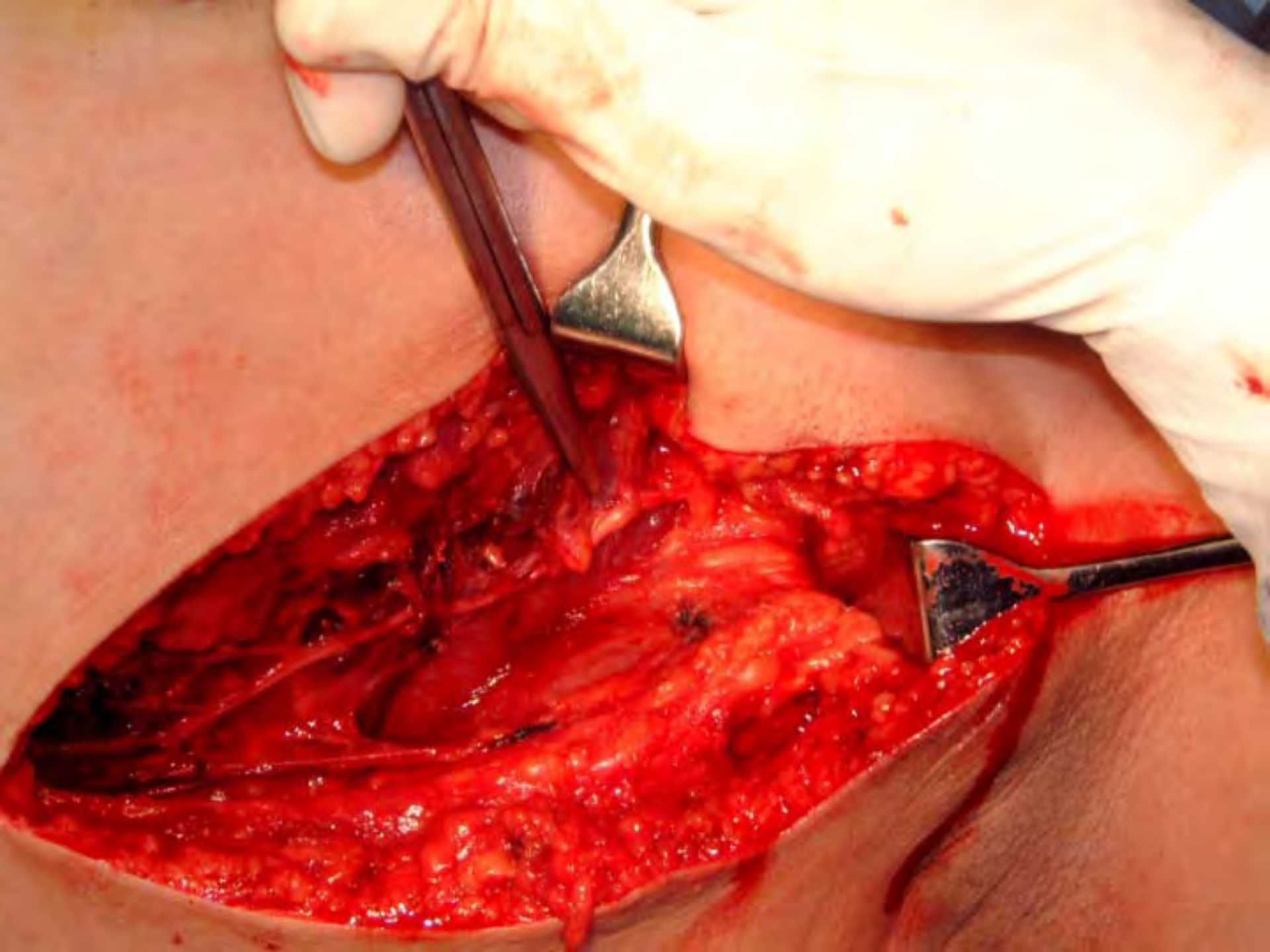




Case #2 – 3yrs Shoulder impingement, H/O Fall







NAME : Mr. R. S. Walawalkar

DATE : 24/2/2003

AGE : 41 Years

SEX : Male

REF. BY : Dr. Ashish Babhulkar

OBSERVATIONS

1. Bilateral median and ulnar SNAP are normal.
2. Bilateral median and ulnar CMAPs are normal.
3. Erb's point stimulation shows equal responses on both sides.
4. F latencies are normal.
4. Needle EMG of left deltoid, supraspinatus, infraspinatus and rhomboids is normal. EMG of left serratus anterior show fibs, normal AMUPs and reduced IP.

IMPRESSION : This NCV/EMG study is suggestive of left long thoracic neuropathy.

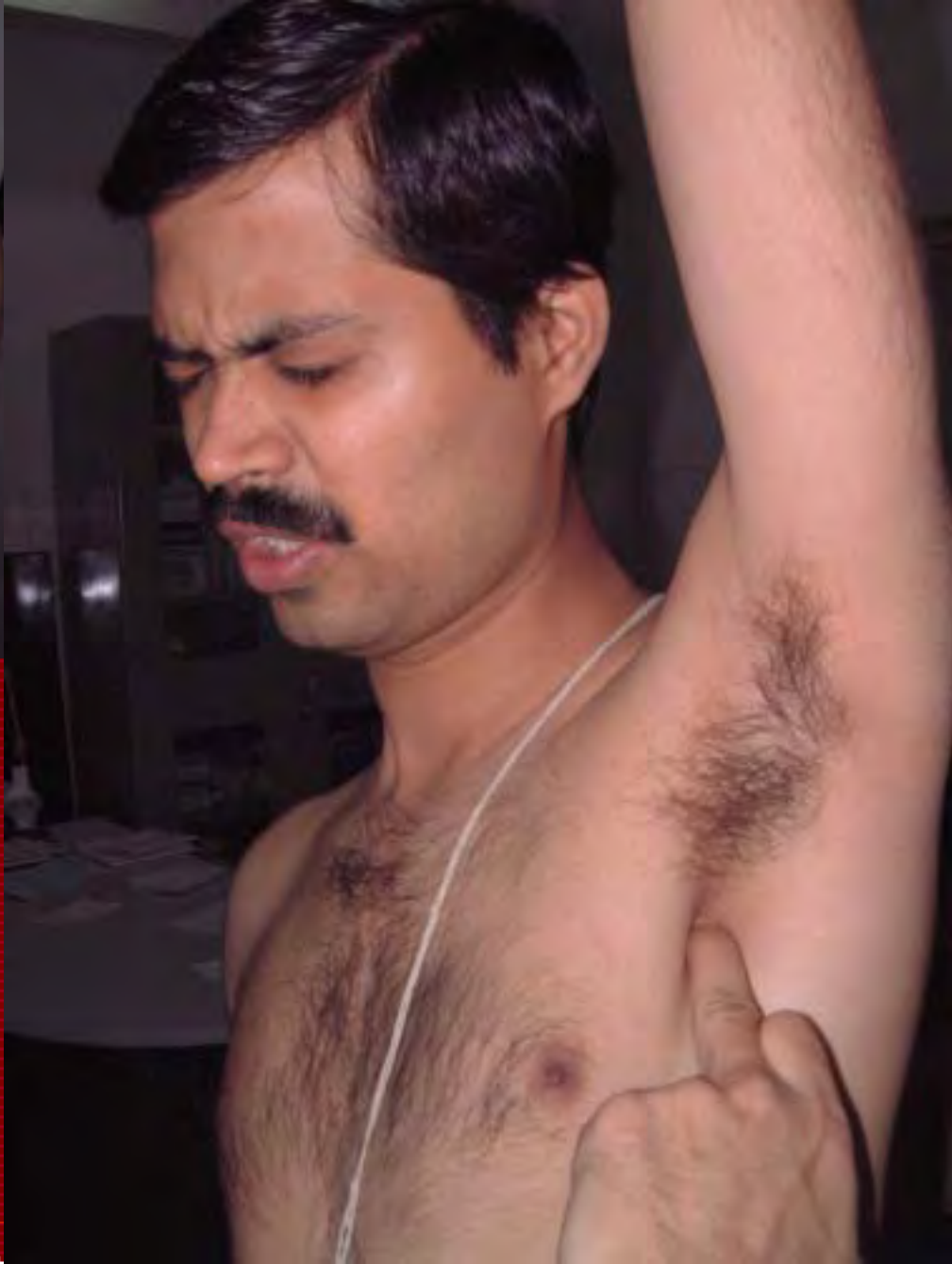


DR. RAHUL KULKARNI
MD, DM, DNB (Neuro)



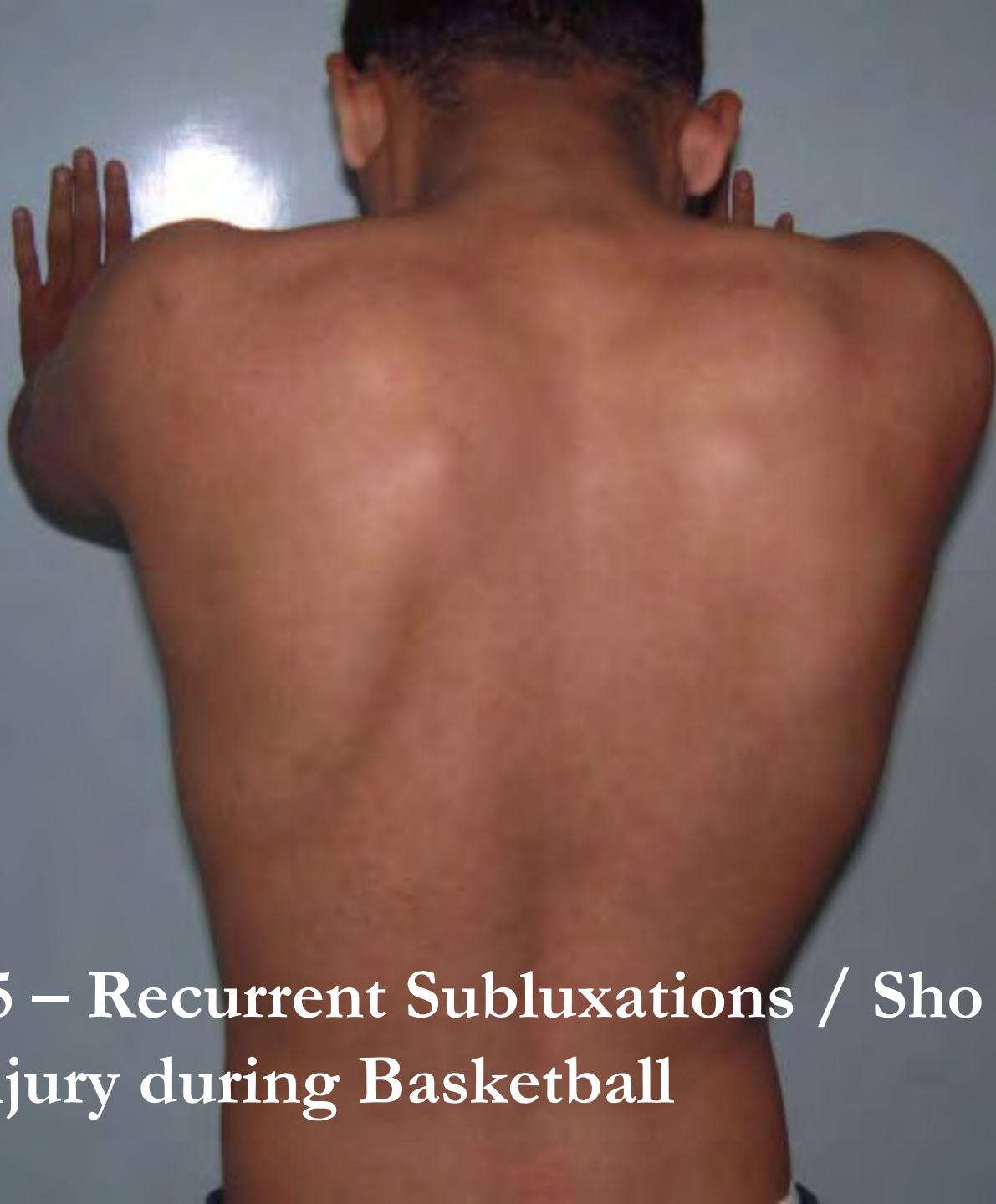
Case # 3 – Shoulder Instability





**Case #4 – Software
techie from Japan**

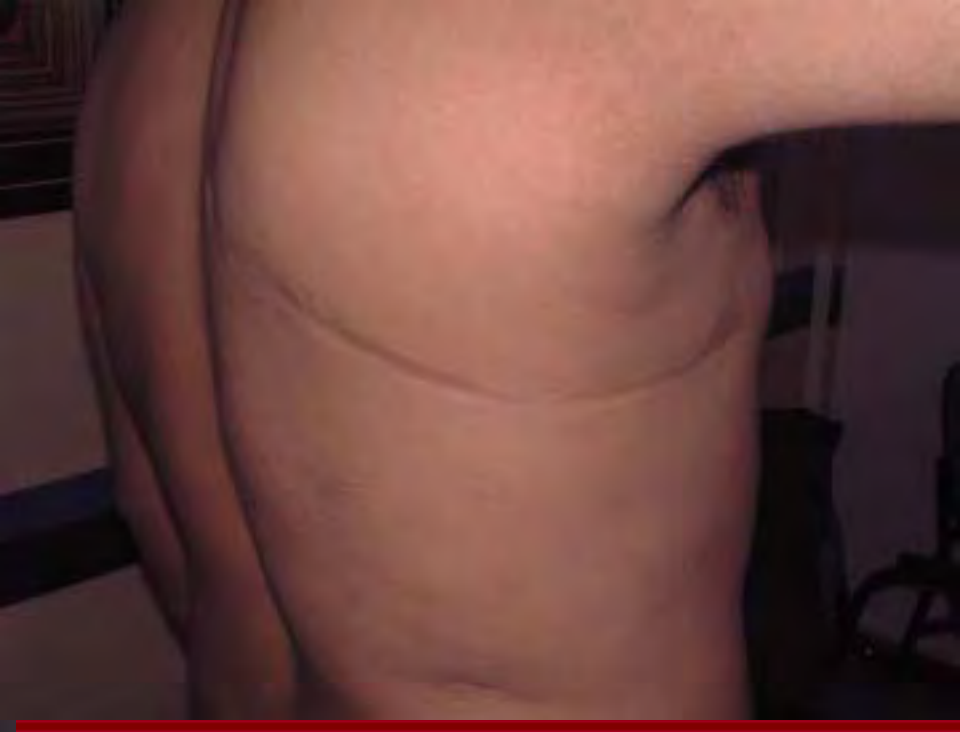
**Presented as
Impingement**



**Case #5 – Recurrent Subluxations / SHO Instability
After Injury during Basketball**



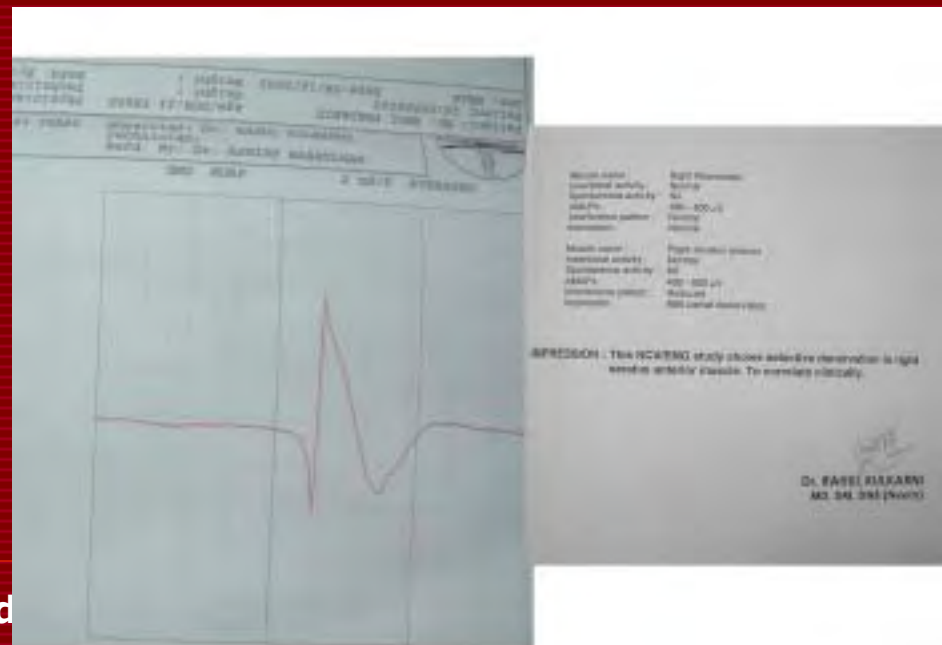
Bilateral Winging – Medial Scapular pain since 8 years



**30yr MBA student
Recurrent Subluxation
Rt. Shoulder**

**Scar from thoracotomy
@ age of 4mths**

www.jointand





6yr Girl,
Twisting
Injury
@ school
2 mths
severe pain
& winging

www.jointandl

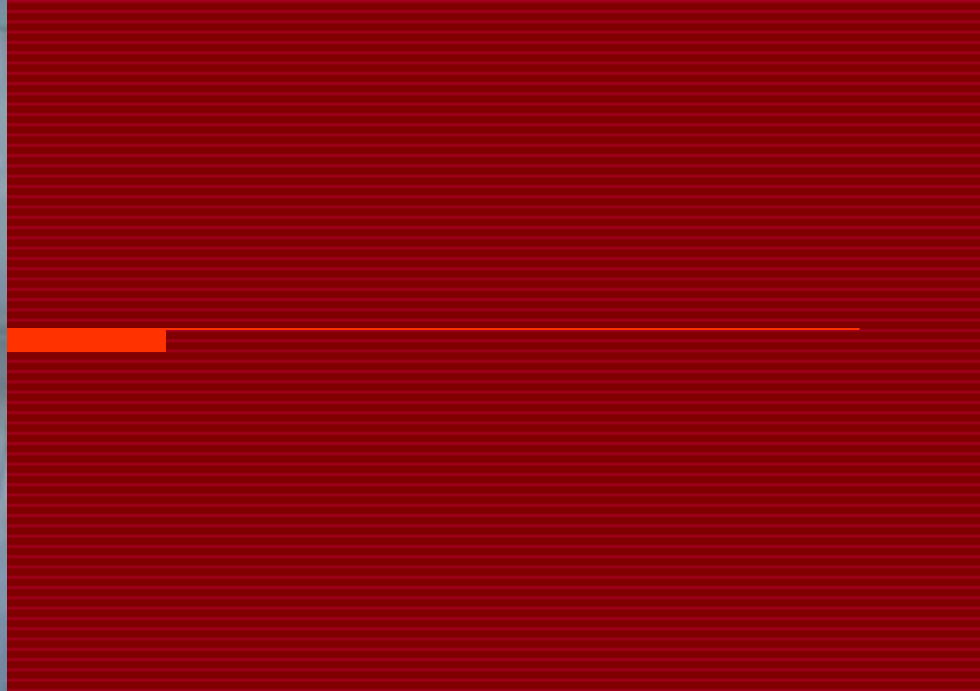


6 weeks post Rehab





www.jointandbones.com



AS, 38, PC operator
7days symptoms



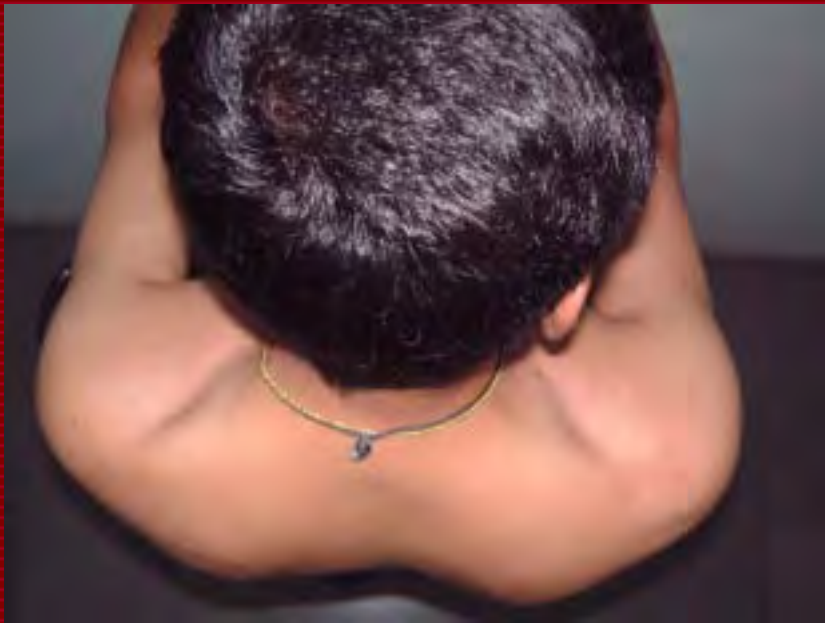


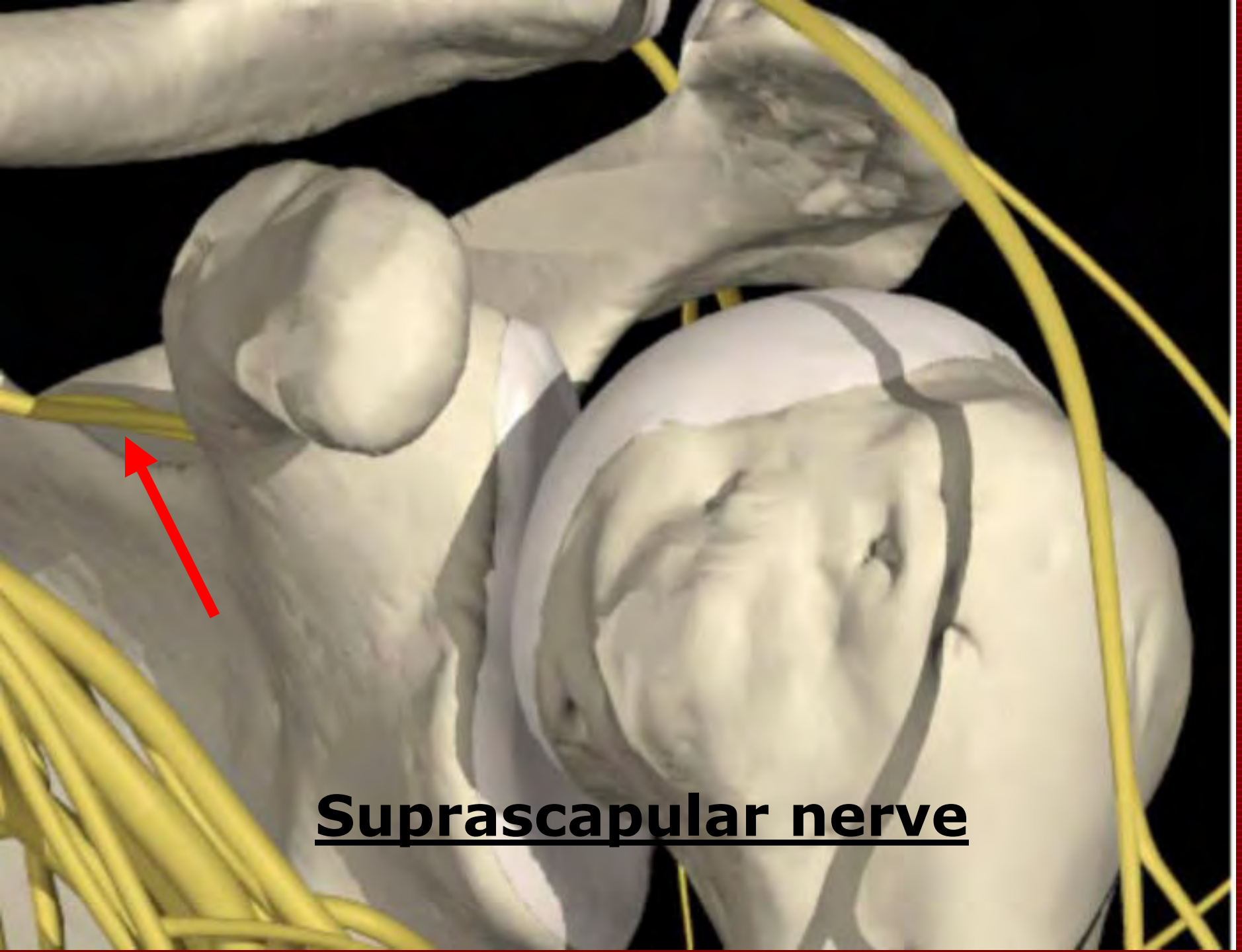
Ghule



Naik – Orissa

2 mths sympto





Suprascapular nerve



Aetiology

- Kopell & Thompson 1959
- Suprascapular Notch – 6 types
 - U=48%, V=3%
- Transverse scapular Ligament
 - calcified, bifid and trifid, hypertrophy
- Spinoglenoid Ligament
 - Fibrousseous Tunnel
 - Prevalence varied– 14% - 80%
 - Nerve stretched in Adduction & Int. Rotation

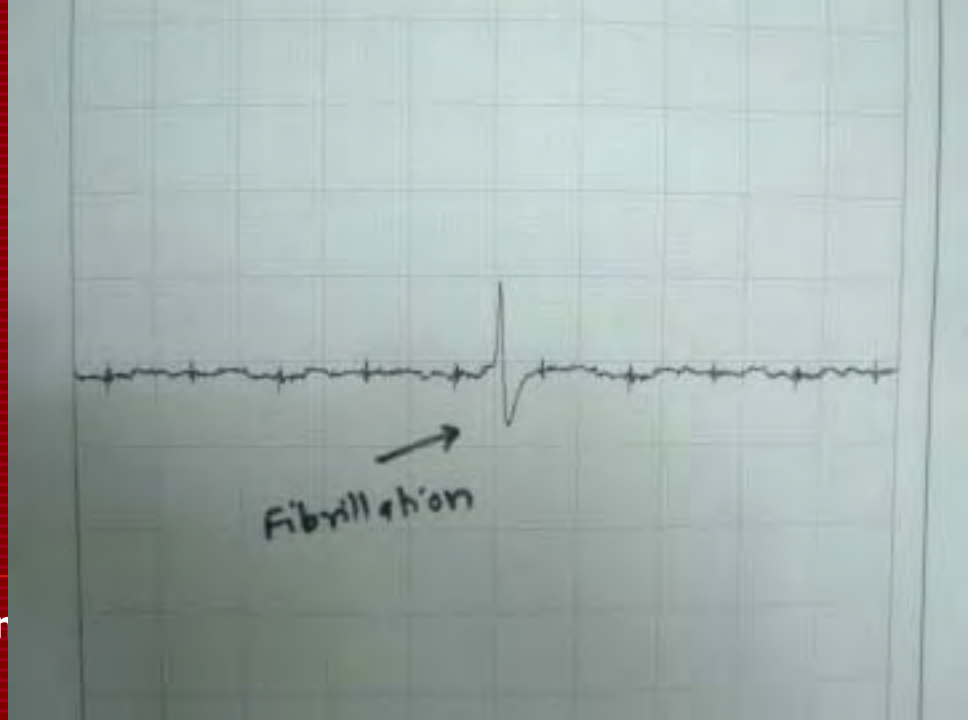
Pathophysiology

- ❑ Vulnerable to stretch & compression
- ❑ 6% Stretch – Conduction AbN
- ❑ 15% Stretch – Irreversible deficit
- ❑ Causal lesion
 - Overuse
 - Mass Lesion
 - Trauma
- ❑ Suprascapular Notch - Rengacharry – Sling Effect
- ❑ Spinoglenoid Notch
 - Volleyball Players
 - Asymptomatic Infraspinatus atrophy
 - Ligament Laxity
- ❑ Ganglion
 - ? Trauma to capsule
 - Associated Capsulo-Labral tears



**Case #1 Epileptic
Fall on railway
platform - bruising
On scapula 9 mths
back**

www.jointan.com

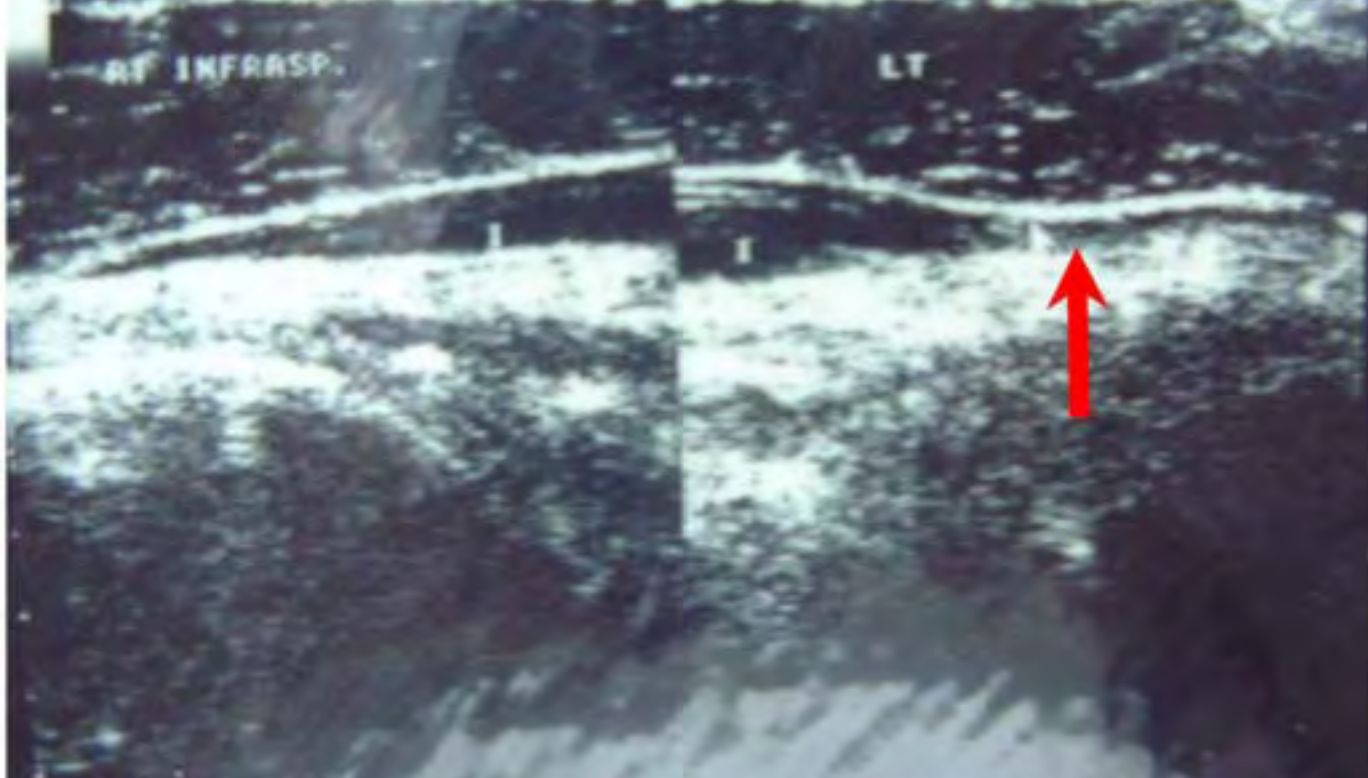


Case #2 – Dislocated in sleep – MDI+ weak ISP

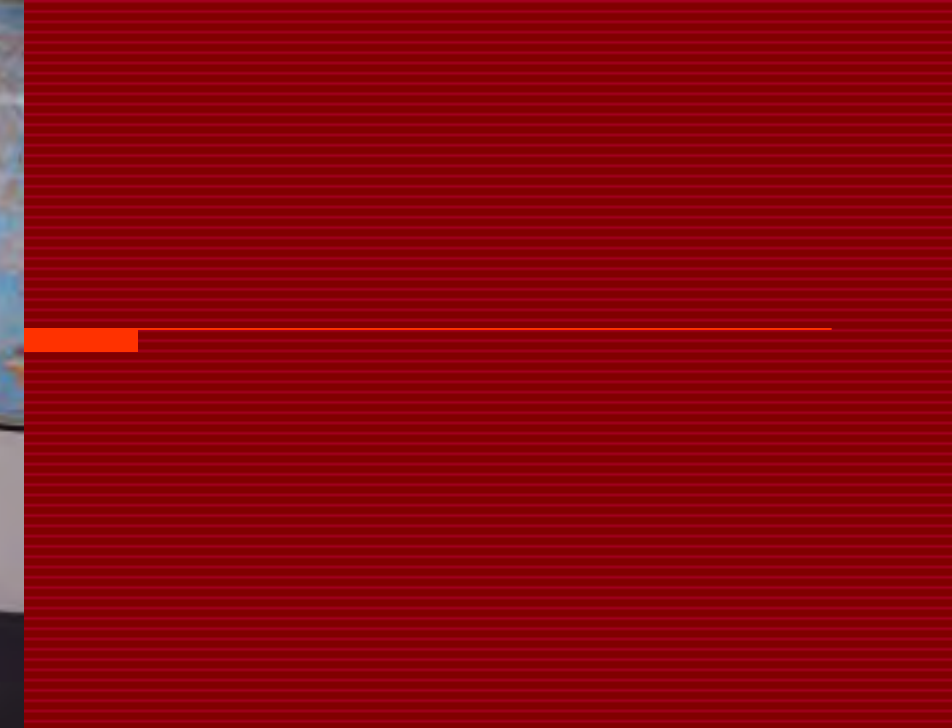


KA DR. ARUN'S KIDNEY : SHRIPAD MURALE: 27Y 05-12-'02
BHANDARKAR: ROME: DR. A. BASHULKAR: : M 19:29:55

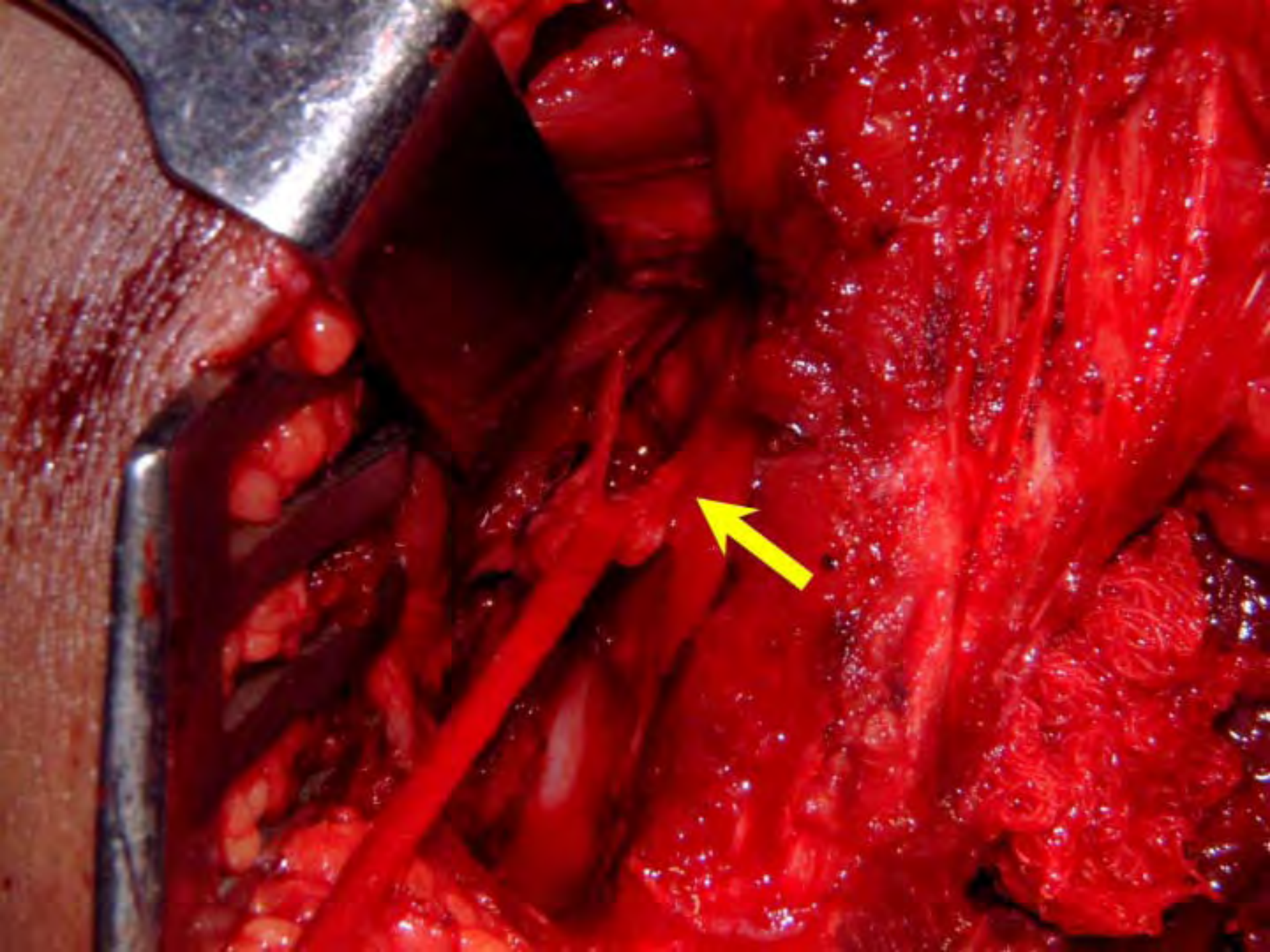
127/12081 127/12081
26Hz



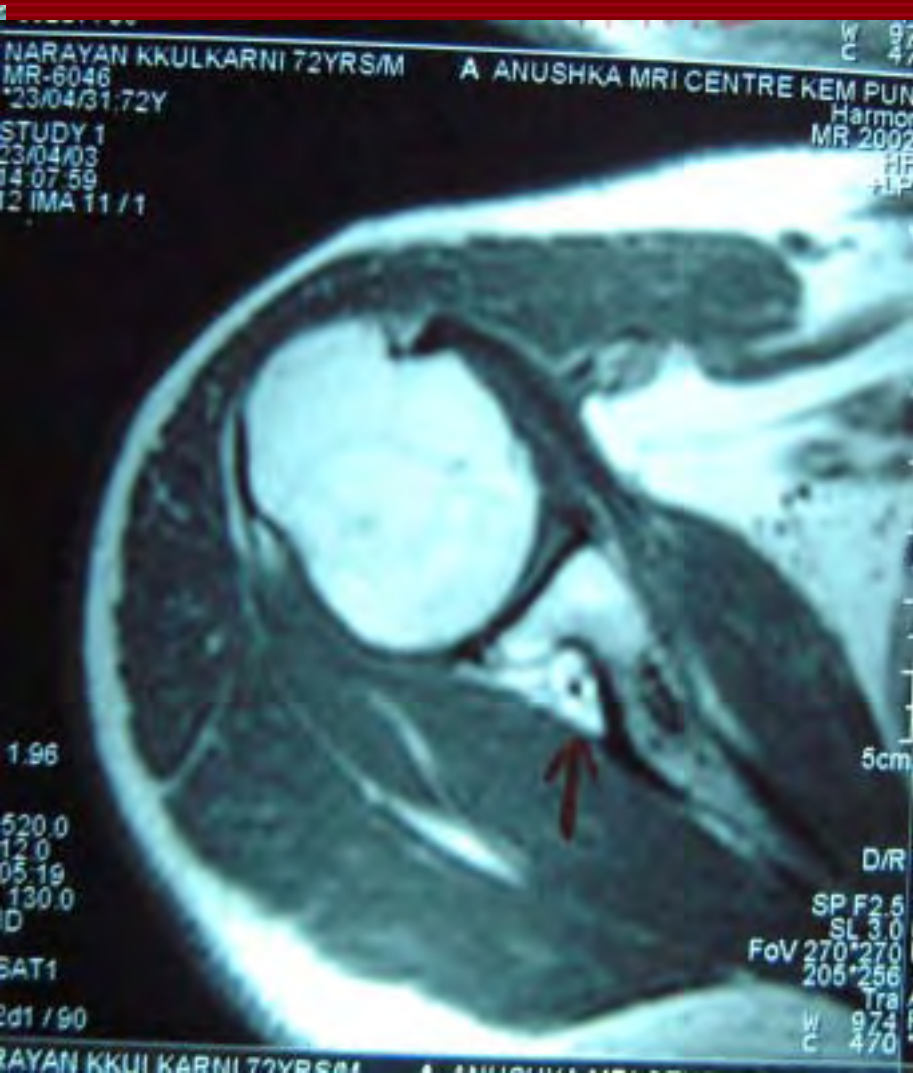
5524 10.0R05 65B C5 A2 5524 10.0R05 65B C5 A2
A2: Hucowiski 000: 100X







Case #3 68yr Male Scapular pain



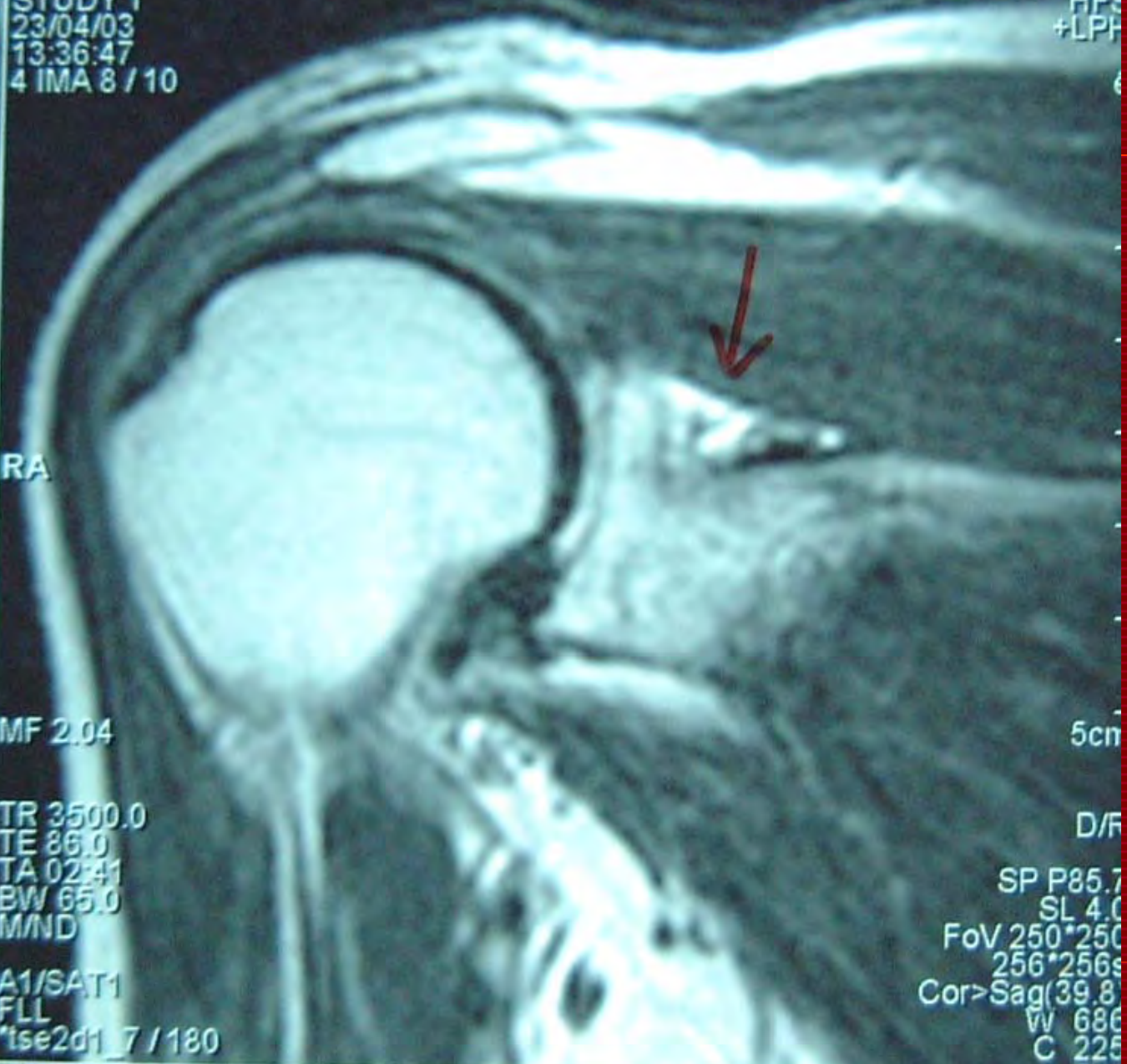
NARAYAN KKULKARNI 72YRS/M

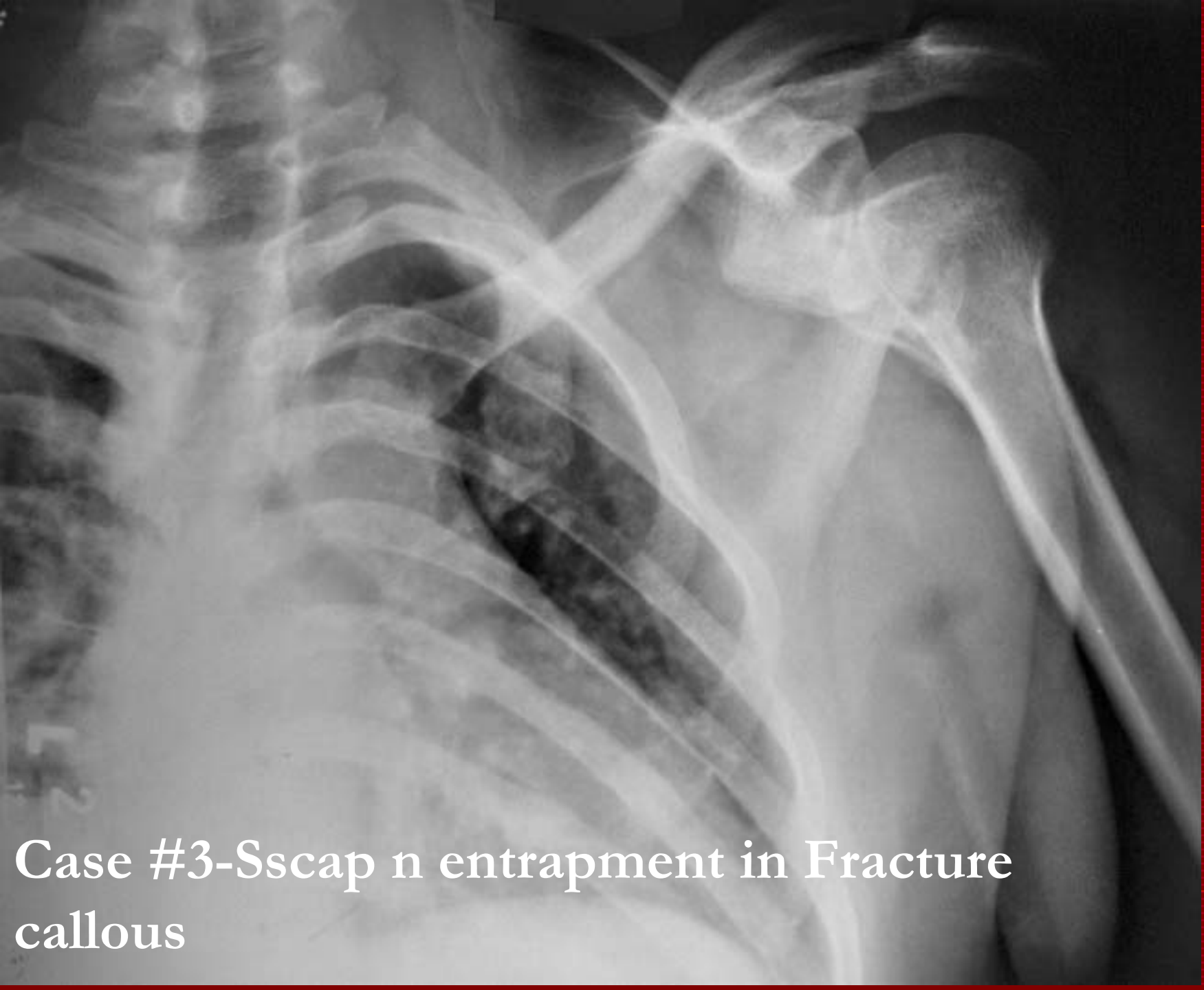
H ANUSHKA MRI CENTRE KEM PUNE

MR-6046
*23/04/31:72Y

Harmony
MR 2002E
HFS
+LPH

STUDY 1
23/04/03
13:36:47
4 IMA 8 / 10





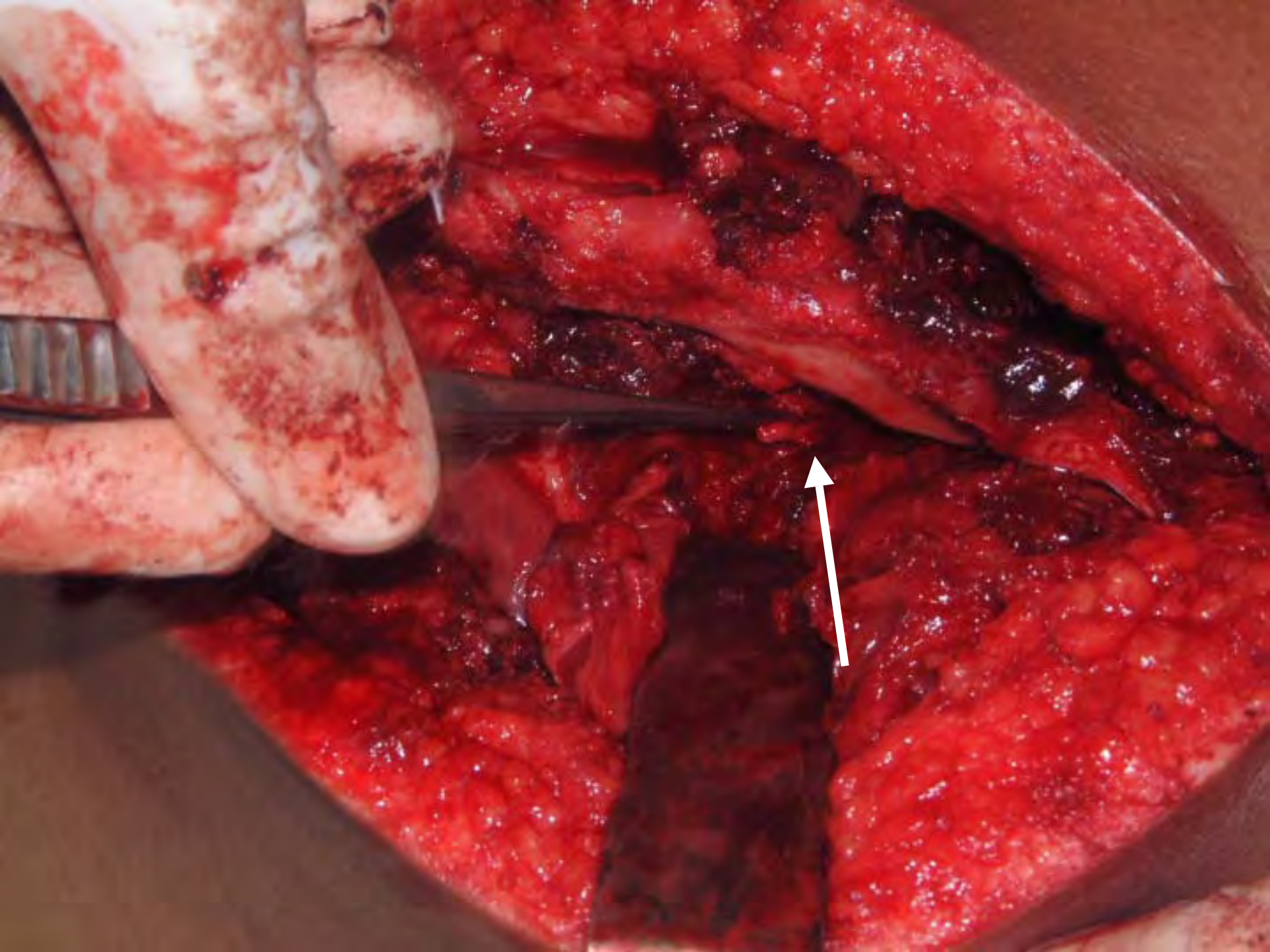
Case #3-Scap n entrapment in Fracture
callous

+00.0°
5mm
35.8cm
x= +0.80cm
y= +0.80cm
STND

LEFT SHOULDER
DR. BABHULKA



1.4 x= +5.80cm y= +0.45cm P
MI +485



2 mths post decompression





Case #4 – Isolated Right ISP wasting

1103, SHUKRAWAR PETH, OFF TILAK ROAD, PUNE 411002, TEL 4475927

Patient: Mr. SACHIN KHARAD
Patient Id: 00000059
Sex: MALE

Age/DOB: 26 YEARS
Height :
Weight :

Physician: Dr. RAHUL KULKARNI
Technician:
Refd. By: Dr. ASHISH BABHULKAR



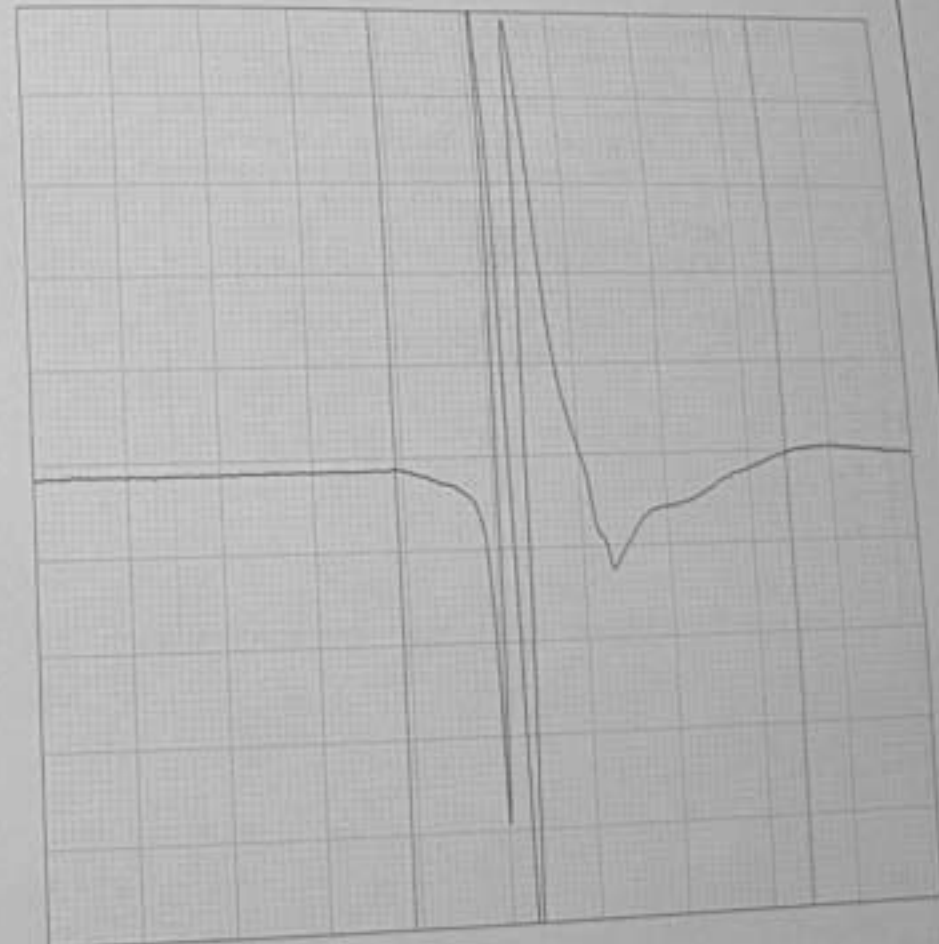
EMG MUAP

2 mS/D AVERAGED

Muscle Name: Infraspin

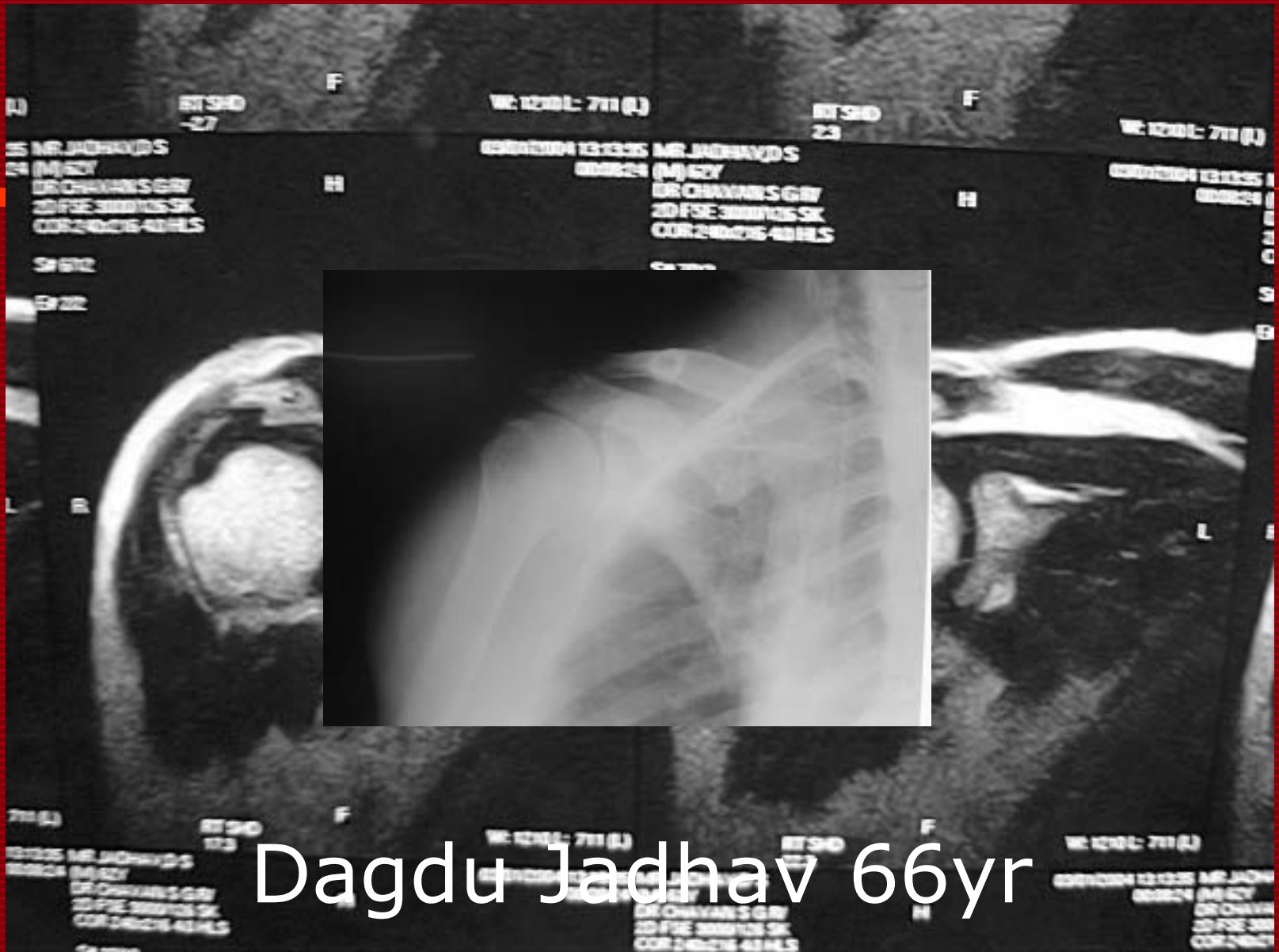
Side	Gain	LoCut	HiCut
	100 μ V	100 Hz	5 Khz

No	Ampl (μ V)	Dur (mS)	Area (μ V.ms)
1.	1107	9.0	743
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			



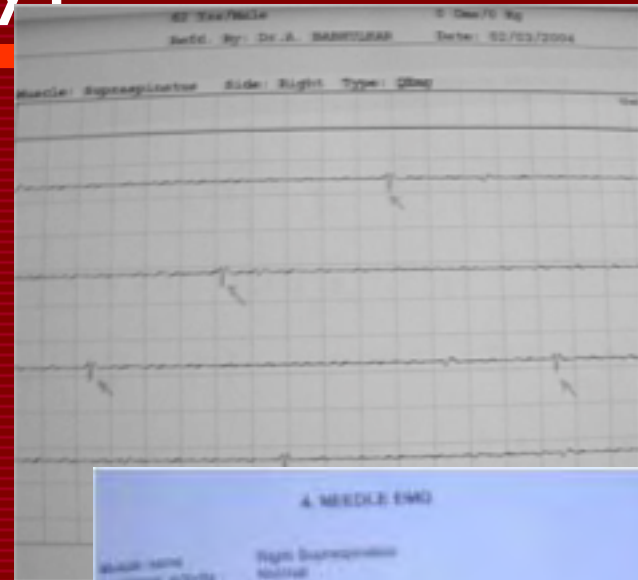
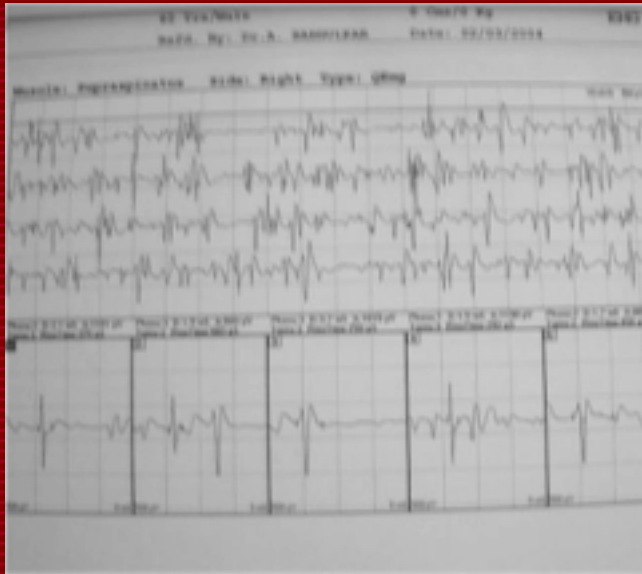
**GC, 36yr Malkapur, Rickshaw
Driver H/O Fever followed
by 2mths later Lt. neck pain. MRI
Cx Sp N, EMG elsewhere
N. Repeat EMG +ve for Scapular
Nerve compression**





Dagdu Jadhav 66yr

av 66yr



A. NEEDLE EMG

Muscle name:	Right Supraspinatus
Insertional activity:	Normal
Spontaneous activity:	Occ. Fibr.
MUPs:	500 - 1500 uV
Interference pattern:	Stumbled
Impression:	Classic partial denervation and reinnervation
Muscle name:	Right infraspinatus
Insertional activity:	Normal
Spontaneous activity:	Nil
MUPs:	500 - 1500 uV with polyphasic
Interference pattern:	Stumbled
Impression:	Classic partial denervation and reinnervation
Muscle name:	Right Deltoid
Insertional activity:	Normal
Spontaneous activity:	Nil
MUPs:	200 - 800 uV
Interference pattern:	Normal
Impression:	Normal

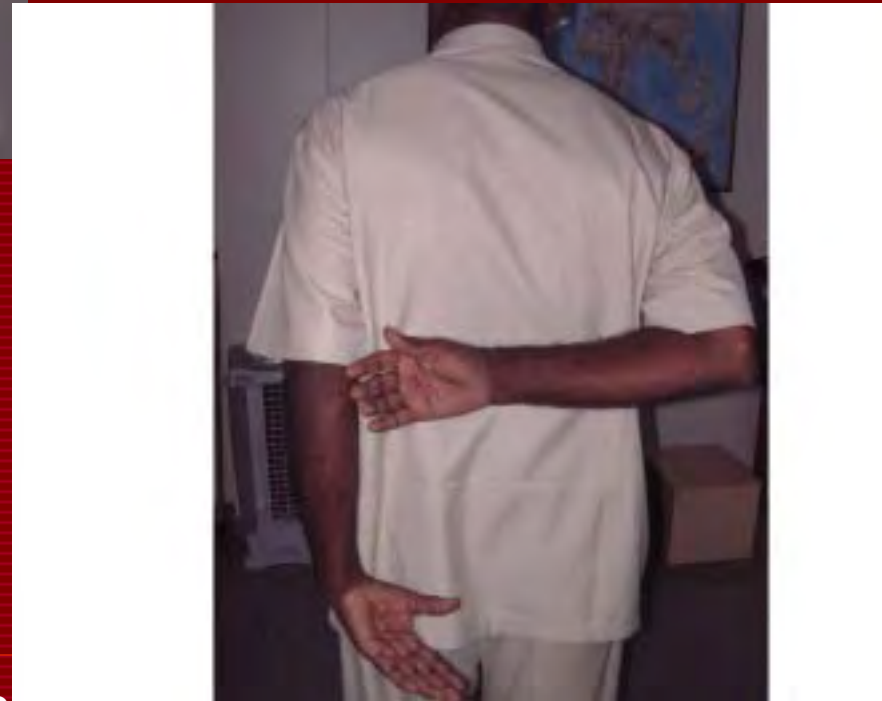
ESBON: This NCV/EMG study shows selective denervation right spinal muscles suggestive of right suprascapular neuropathy.



Ahmednagar, Elecr.
Engg 27yr Full ROM

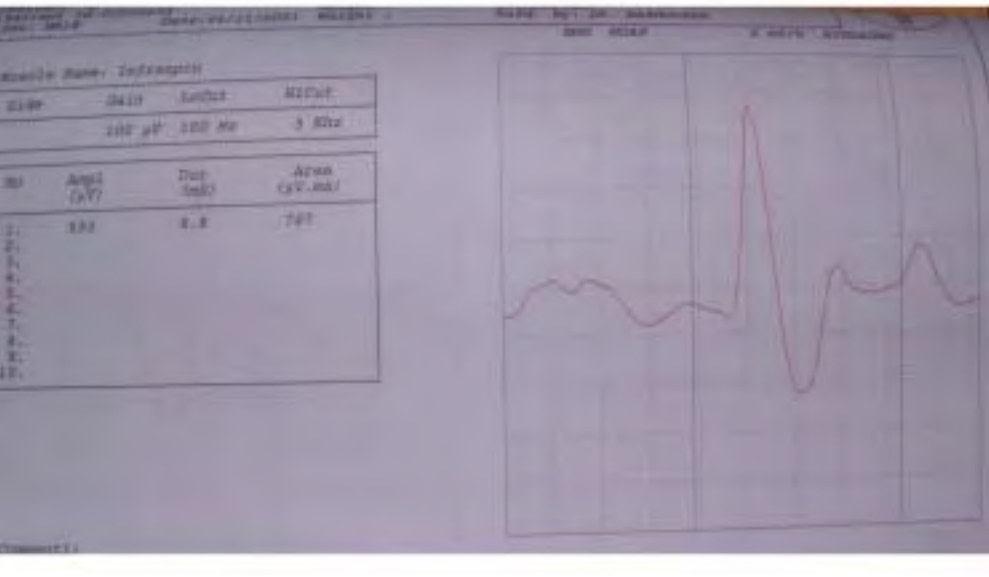
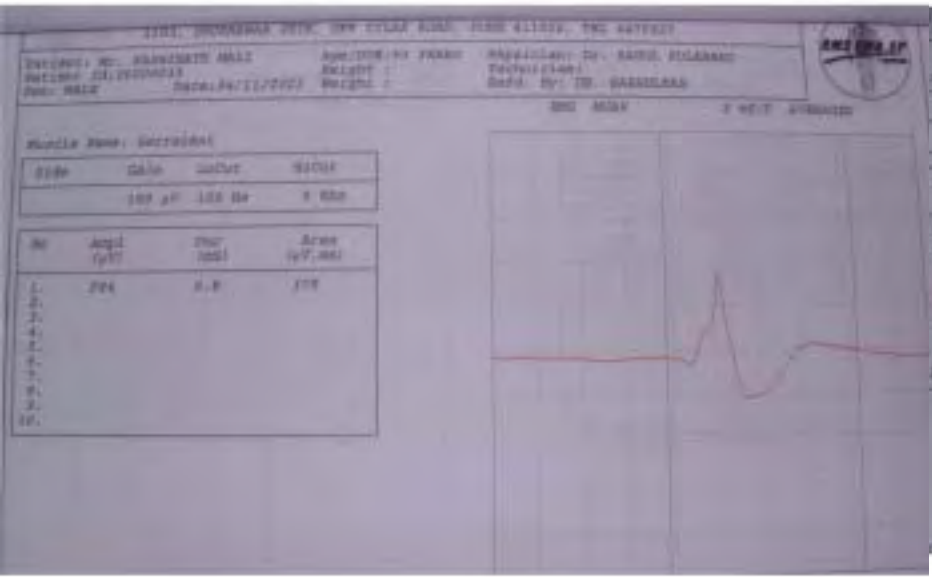
www.jointandbo





50yr MSEB worker- Electric shock followed by “Frozen shoulder” 6 weeks later





E MEDICAL SYSTEMS
ENESIS_SIGNA GEMSOW
k: 1678
Sag L 132.6
OV 13.3cm

SA

OMEGA MRI F
KATHALE JAG
M
5269/
Jan 10
04:48:4
Mag =

Neuroma

Marker capsule

15.6kHz
20
0sp
2.00 NEX
512

IP

WW: 536WL: 265









5 weeks Post op



Conclusion

- ❑ Compression neuropathy – Not so UNCOMMON
- ❑ High Index of suspicion
- ❑ Beware of YOUNG / Frozen Shoulder / Weak Rotator Cuff
- ❑ EMG changes after minimum 6 weeks
- ❑ Diagnosis is essentially clinical
- ❑ Interact with your neurologist