

CALCUTTA ACADEMY OF RADIOLOGY



Calcutta Academy Of Radiology

VOLUME II ISSUE II

APRIL, 2021

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COVID, Vaccines and Webinars - Dr. Bijon Kundu

Season's greetings to everyone,

It is really satisfying to bring out this seventh newsletter of Calcutta Academy Of Radiology.

We have come a full circle with this Covid 19 pandemic in our country & World wide yet India faces a second wave of new infections & Europe a third wave along with Latin America & Africa struggling to contain this deadly virus. Vaccines are our only way out of this dreadful pandemic and we are proud that India plays a lead role in leading not only our great Nation but the World too in this regard.

We are sure our radiology colleagues are seeing fresh new cases every day & so our hospitals specially in some states in India are noticing a rise in cases occupying the beds & ICU 's filling up. We cannot lower our guard in spite of many of us receiving two doses of the vaccine. We need to wear masks , wash our hands properly & social distance as much as possible for some more time to come. We are sure most of our colleagues miss the great Indian festivals & get together in these times but there is always hope at the end of the tunnel.

We have seen a tsunami of webinars and miss the real feel of our seminars in this last year. It has been difficult at times to keep up with the number of webinars in all disciplines of radiology and we from CAR admit some of them have been exceptionally good.

Our newsletter & our team from CAR have also done their best to keep up with the times , publishing our newsletter regularly & trying to keep it interesting for all. Thanks to many of our well wishers for their constant support in these difficult times. We hope to carry on with torch of CAR flying high for many more years to come as well as improving & innovating to stay in pace with advances of radiology. Wishing all a happy Festival of colours & stay safe & stay well ."

This newsletter would not have been possible without the academic contribution from Dr. Bhavin Jankharia, Dr. Rajesh Botchu, Dr. Ankur Shah, Dr. H. S. Mohanty and Dr. Hirak Ray Choudhury, We sincerely thank all of them for their unconditional support in bringing out this newsletter.

Bijon Kundu



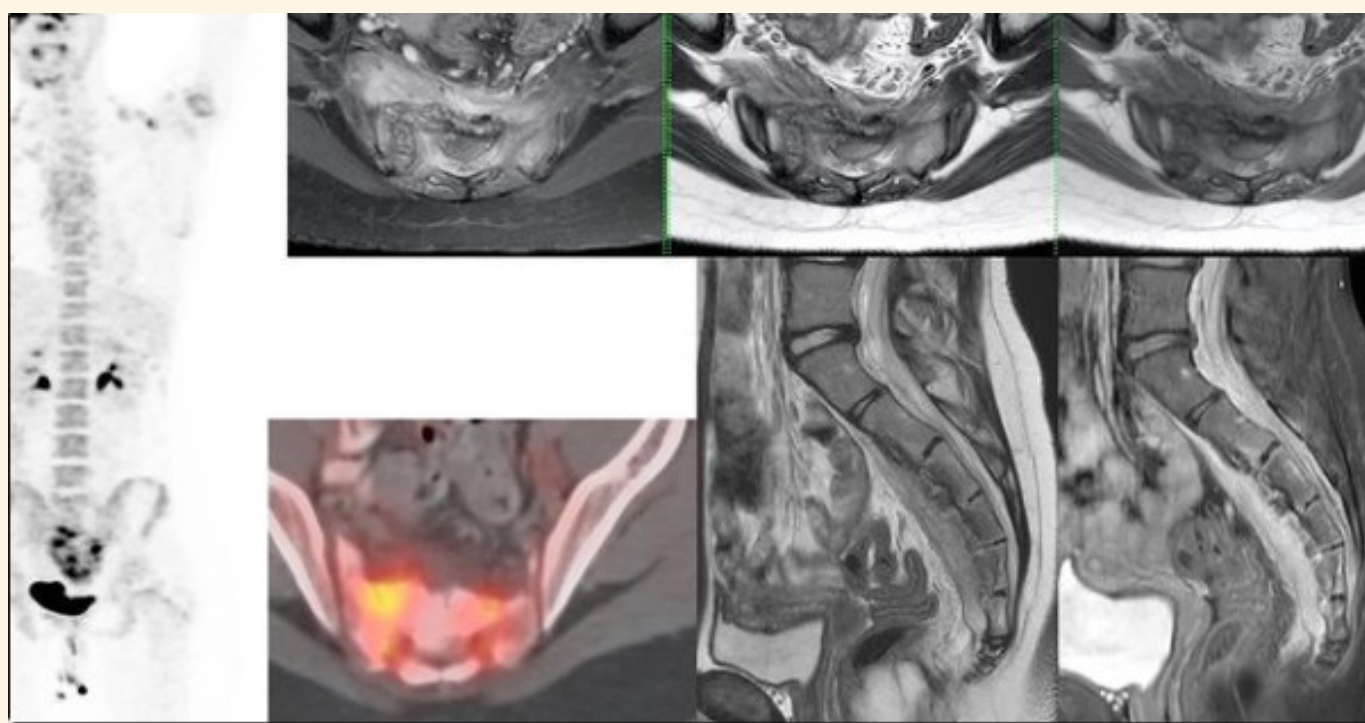
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Dr. Bhavin Jankharia needs no introduction to the Radiology fraternity. As you all know he is a renowned Radiologist and academician and has contributed immensely in propagating Radiology education. Presently, he is a Consultant Radiologist at Picture This by Jankharia. He is also a Trustee of Radiology Education Foundation. He has consented to share some of his work with us, which will help all the Residents as well as practicing Radiologists. Here is some information about him in brief.

- He has written 5 books, 35 chapters, 57 articles (PubMed listed)
- Presented 32 posters
- More than 1500 invited lectures over 27 years
- Editor-in-Chief, Indian Journal of Radiology & Imaging (2007-2012)
- Latest Book (2019): Computed Tomography of Interstitial Lung Diseases
- Hon. Visiting Consultant – Radiology – Tata Medical Centre, Kolkata

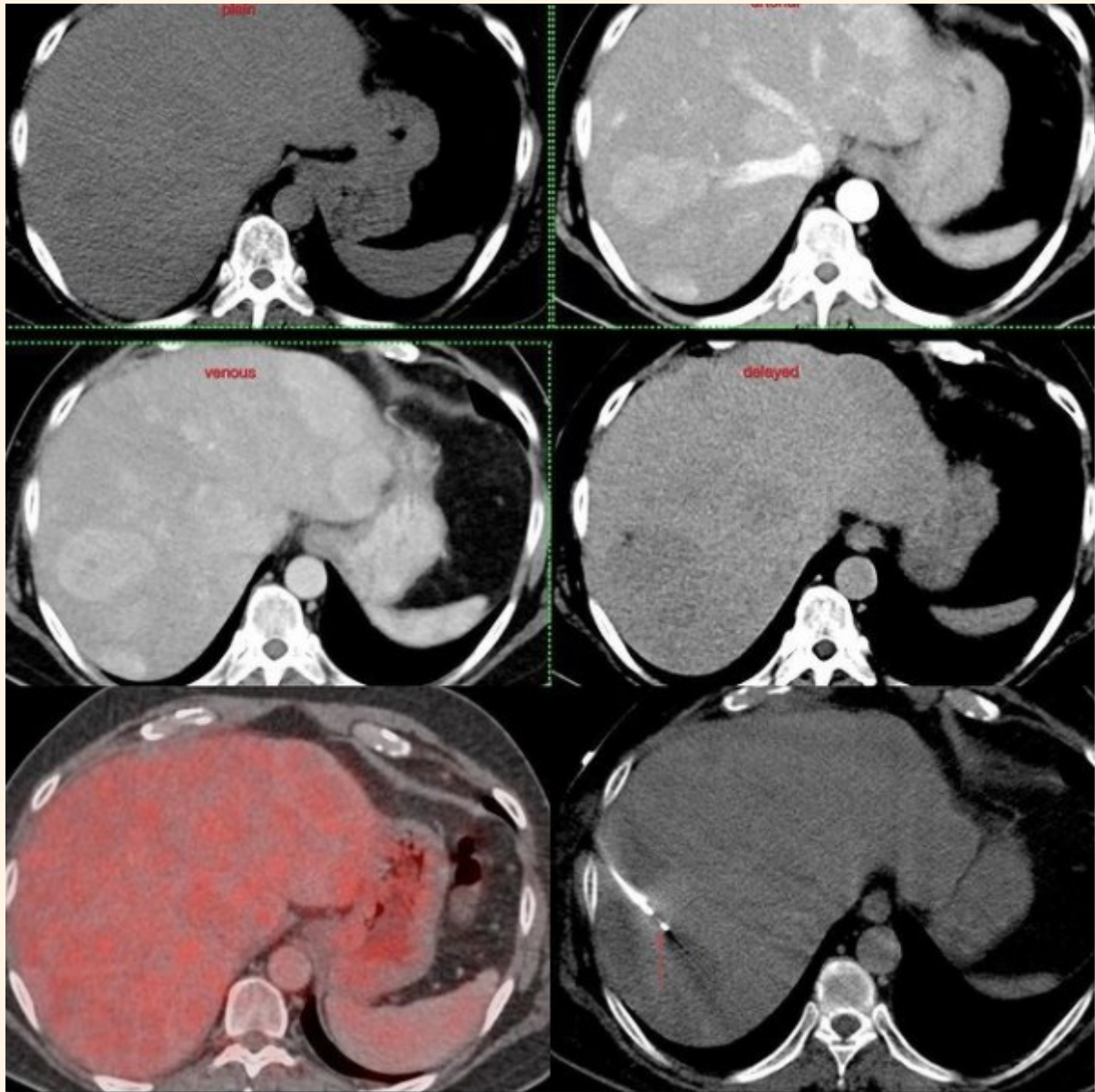
Case I



This 16-years old girl presented with sacral pain. She had an aggressive looking lesion on MRI but without significant enhancement of the soft tissue and without much uptake in the soft tissue, though there was bone uptake and marked sclerosis. She had 3 biopsies, all negative for malignancy or a specific infection. Once she was labelled as chronic non-bacterial osteitis (CNO) and put on appropriate treatment, she improved clinically.

CNO encompasses the earlier terms of chronic recurrent multifocal osteomyelitis (CRMO) and SAPHO. It is a paediatric and adult auto inflammatory disorder that presents with multifocal or solitary sterile inflammatory bone lesions with bone pain and a waxing and waning clinical course.

Case II



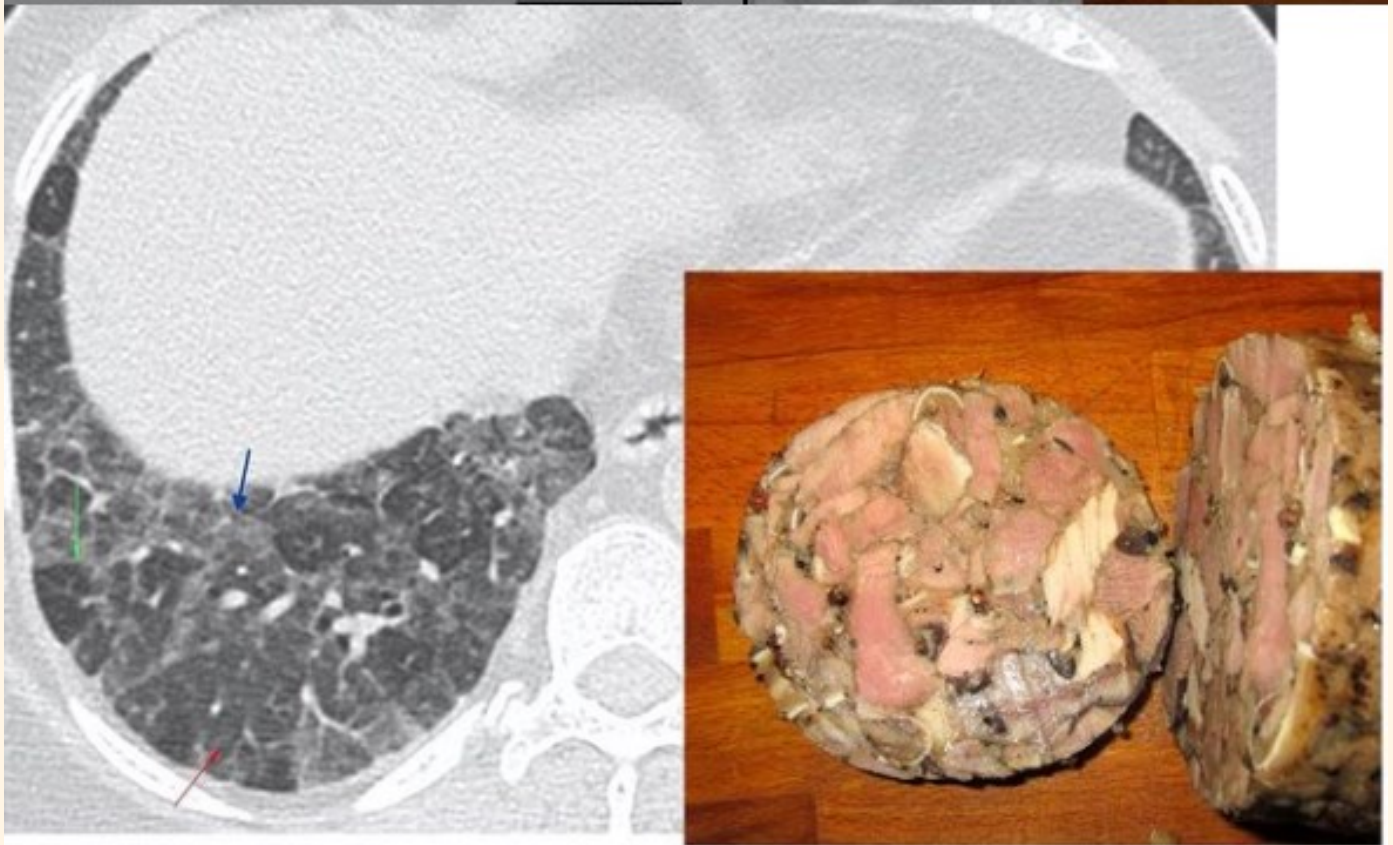
This is a 49-years old lady who was found to have multiple lesions in the liver. FDG PET did not show the lesions well.

The mutiphasic CT scan had shown arterially enhancing lesions with rapid wash-out, highly suggestive of neuroendocrine tumors. The plain scan did not show the lesion well. So I did a multiphasic scan again at the time of biopsy. After choosing the lesion in segment 7 that I eventually biopsied, I again gave contrast during the procedure and placed the needle in during the arterial, venous and delayed images and performed the biopsy with a 20G coaxial biopsy gun. The diagnosis was neuroendocrine tumor (NET) G2 (WHO 2010).

I am aware that many of you would have just done a USG guided biopsy and that's fine. But there are always ways to manage with CT scan, even if the lesions in the liver are not well seen on the plain scan.

Eventually a DOTA PET was also performed and this showed the lesions really well.

Case III



Triple density sign

It represents a mish-mash of meat made from the head of a calf or pig. This variegated appearance when seen in a patient with interstitial lung disease (ILD), suggests fibrotic hypersensitivity pneumonitis as mentioned. The blue arrow points to the ground-glass, the green to the area of air-trapping and the red to a normal spared lung lobule.

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Mazabraud's syndrome

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No conflicts of interest/ No financial disclosures

Fibrous dysplasia can be associated with intramuscular myxomas, a condition known as Mazabraud's syndrome. This was first described in 1926 by Henschen and the etiology for this is unknown. It is often associated with polyostotic fibrous dysplasia.

Mazabraud's syndrome has a female predominance and is usually seen in 5th and 6th decade.

Fibrous dysplasia has a classic ground glass appearance on radiographs. On MR fibrous dysplasia returns a low signal on T1 and high signal on T2 sequences. The soft tissue component of the condition, myxomas, are seen as well defined hypoechoic intramuscular solid lesions on ultrasound. On MRI they are low signal on T1 and high signal on fluid sensitive sequences.

Management of the Mazabraud's is dependent on the symptoms. Malignant transformation of fibrous dysplasia is extremely rare. No cases of the malignant transformation of intramuscular myxomas have been reported.



Figure 1

24 year old female. AP pelvis radiograph showing lucent lesion in the left posterior ilium and ground glass opacification of lesion in left proximal femur

Mazabraud's syndrome

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No conflicts of interest/ No financial disclosures

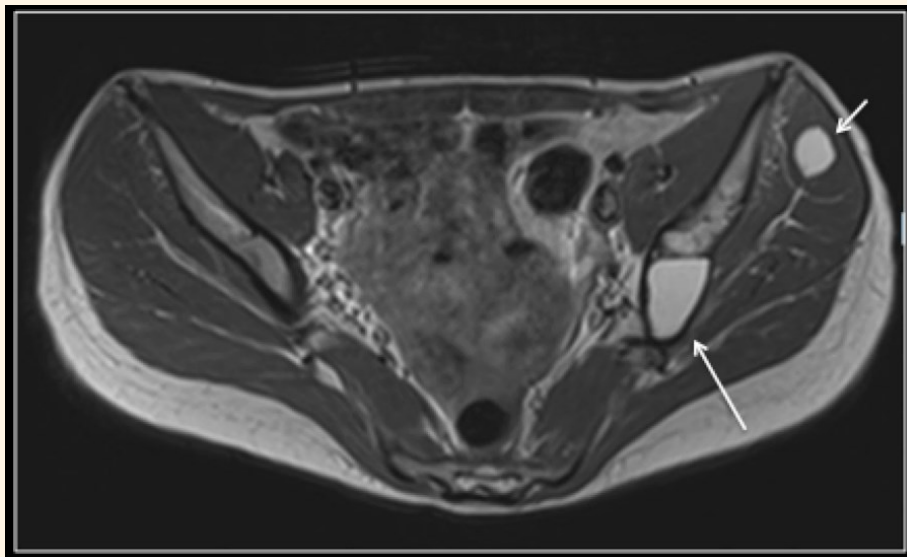


Figure 2

Axial T2 of pelvis showing cystic fibrous dysplasia (long arrow) and intramuscular myxoma (small arrow) in the left gluteus medius.

Figure 3

56 year old female. AP radiograph of pelvis showing polyostotic fibrous dysplasia with shepherd crook deformity of right proximal femur

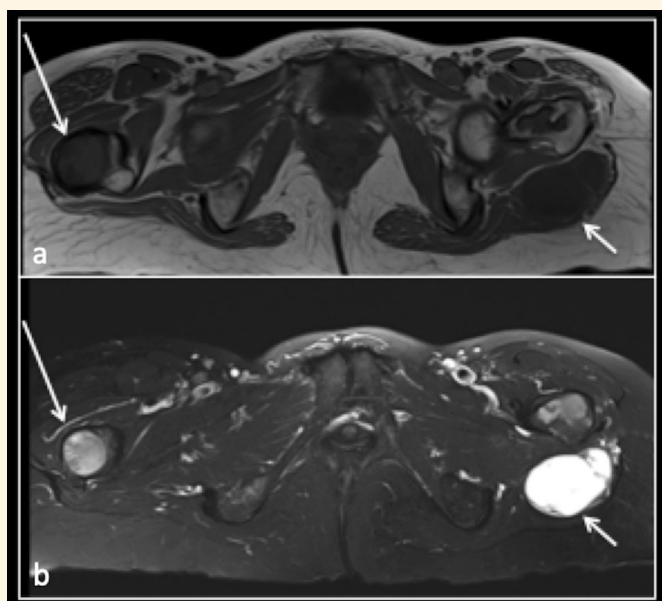


Figure 4

Axial T1(a) and STIR (b) showing fibrous dysplasia of right proximal femur (long arrow) and intramuscular myxoma in the left gluteus maximus (short arrow)

ROCK CLIMBER'S FINGER

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No conflicts of interest/No financial disclosures

There has been an increase in indoor climbing gyms. The commonest injuries in 'rock climbers' involve the upper limb in over 90% and one third of these involve the finger. The flexor tendons are tethered to the phalanges with 5 annular (A) and 3 cruciate (C) pulleys, which prevent bowstringing. Pulley injury was first described by Bollen in 1983. These can be diagnosed on dynamic ultrasound or MRI by measuring the distance between the flexor tendon and phalanx. This can range from 0.5mm to 8mm. The most common pulley to be injured is A2 followed by A3. This can be partial or full thickness tears. Most of the injuries are managed non-operatively. If there are multiple pulley ruptures for eg: A2, A3, A4 then surgery is recommended.

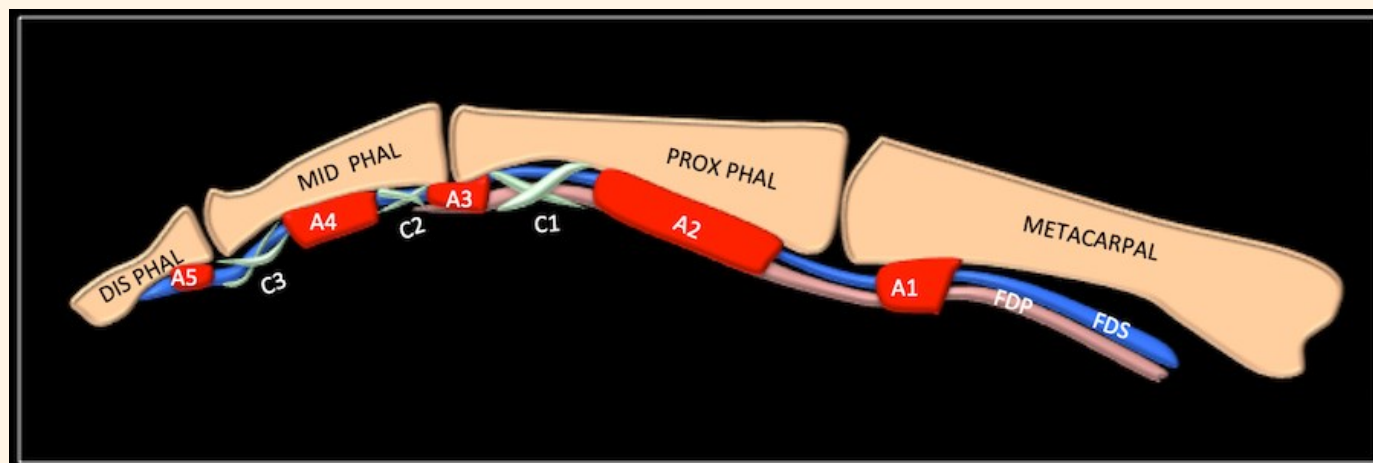


Figure 1

Schematic of pulleys of the finger. FDS (Flexor digitorum superficialis), FDP (Flexor digitorum profundus), PROX PHAL (proximal phalanx), MID PHAL (middle phalanx), DIS PHAL (distal phalanx)

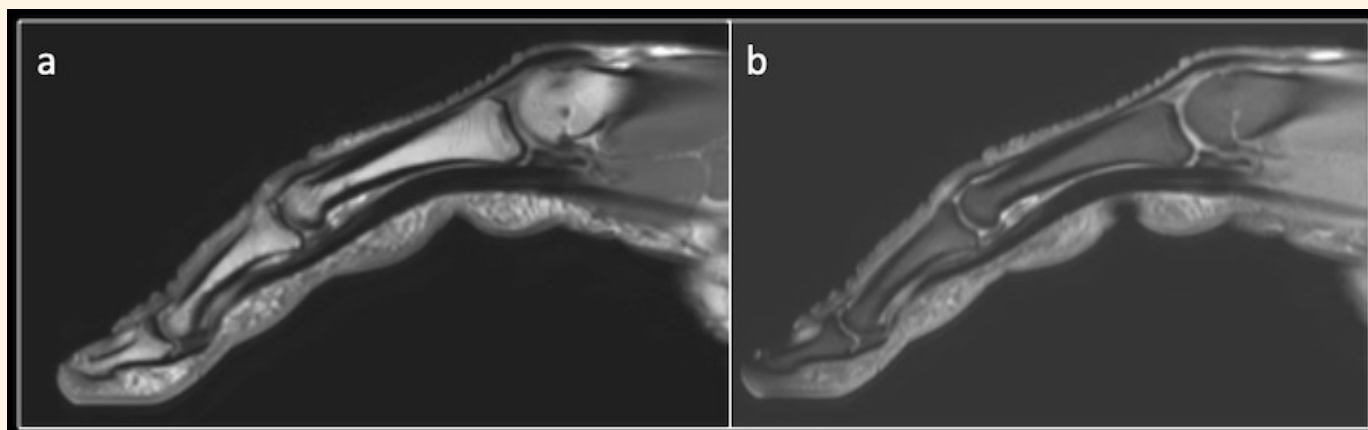


Figure 2

Sagittal PD (a) and PDFS (b) showing flexor tendons with intact pulleys

ROCK CLIMBER'S FINGER

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Figure 3

Sagittal PD(a) and PDFS(b) showing bowstringing of flexor tendons with rupture of A2 and A3 pulleys (arrow)

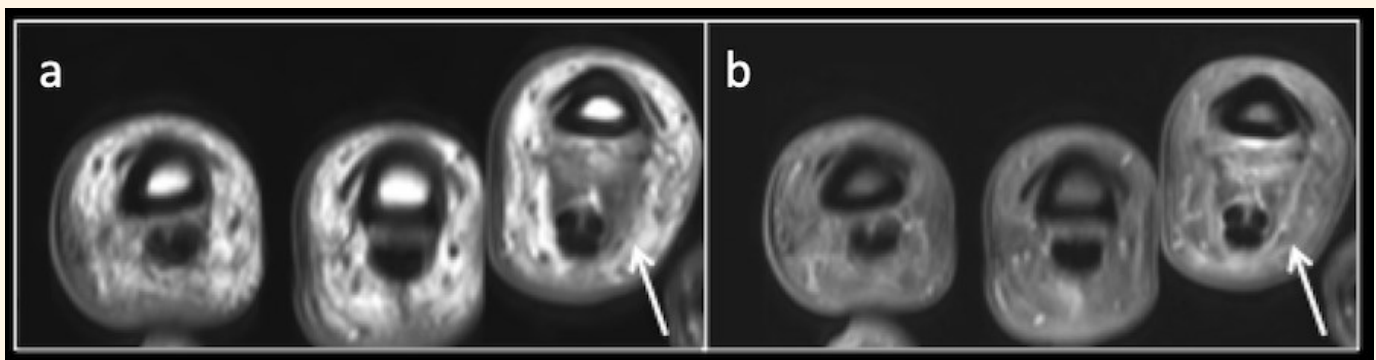


Figure 4

Axial PD(a) and PDFS(b) showing bowstringing of flexor tendons with rupture of A2 pulleys (arrow)



Unusual cause of hip pain – Acute appendicitis.¹Ghassan Almeer, ¹Syed Sameer Khadri, ¹Yuriy Arlachov, ²Rajesh Botchu¹Department of Radiology, Queens Medical Centre, Nottingham, UK²Department of Radiology, Royal Orthopaedic Hospital, Birmingham, UK

80 year old male patient presented with atraumatic severe right hip pain and raised inflammatory markers. He had a past medical history of dementia, diabetes and ischemic heart disease.

On examination, he has painful limited range of movement of the right hip. A pelvis radiograph (Fig 1) was within normal limit with no acute injury. MRI pelvis showed extensive oedema and fluid in the right iliac fossa, thickened appendix and a small right psoas collection (Fig 2 and Fig 3). A CT of the abdomen and pelvis with contrast confirmed the diagnosis of acute appendicitis complicated with right psoas muscle collection (fig 4). The patient was treated conservatively and discharged following a course of antibiotics.'

Hip pain is a relatively common symptom affecting all ages. The diagnosis can be challenging, as the differential diagnosis is broad. Pathologies involving the hip joint, soft tissues around the hip, sacroiliac joint and lumbar spine can present with hip pain. Appendicitis is relatively common cause for acute right lower abdominal pain in young. However in elderly it can sometimes be a diagnostic challenge to the clinician. Only 50% of patients present with classical symptoms of acute appendicitis. Right hip pain and antalgic gait can be a symptom of appendicitis (especially retrocaecal and pelvic appendix). Appendicitis is a clinical diagnosis and imaging (ultrasound, CT) are used in patients with atypical presentation and to confirm diagnosis.

MRI has been used for evaluation of lower abdominal pain in pregnant and pediatric patients. A spectrum of pathologies including appendicitis, ovarian torsion, pyelonephritis, intussusception, colitis and hemorrhage can be diagnosed on MRI. A thickened (>7mm) with periappendiceal inflammation enables one to clinch the diagnosis. The sensitivity and specificity of MR for appendicitis is very high (>92% specificity and >97% sensitivity).

We present this case to highlight the importance of reviewing the right iliac fossa on MR of pelvis and hip in patients with hip pain and hence decrease morbidity and mortality.



Fig 1: A pelvis radiograph was within normal limit with no acute injury.



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Unusual cause of hip pain – Acute appendicitis.

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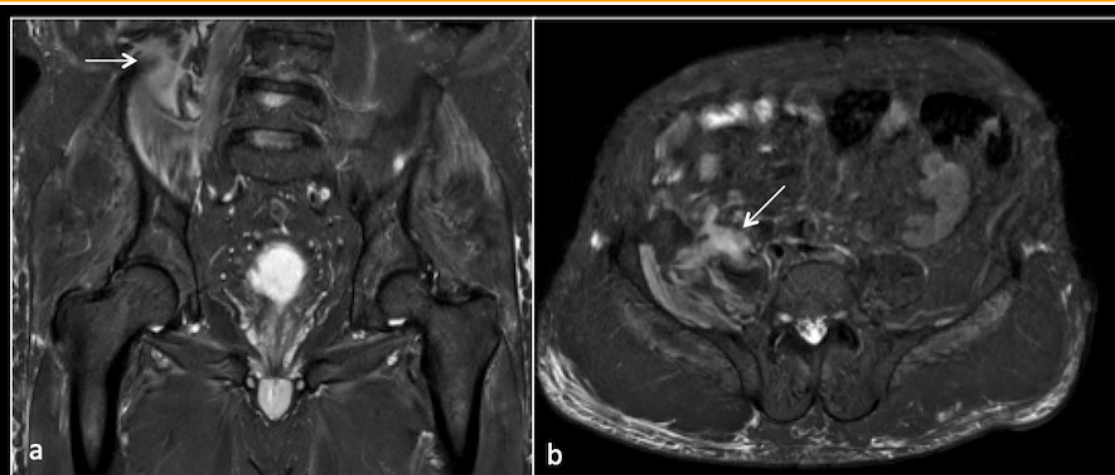


Fig 2 & 3

MRI pelvis showed extensive oedema and fluid in the right iliac fossa, thickened appendix and a small right psoas collection

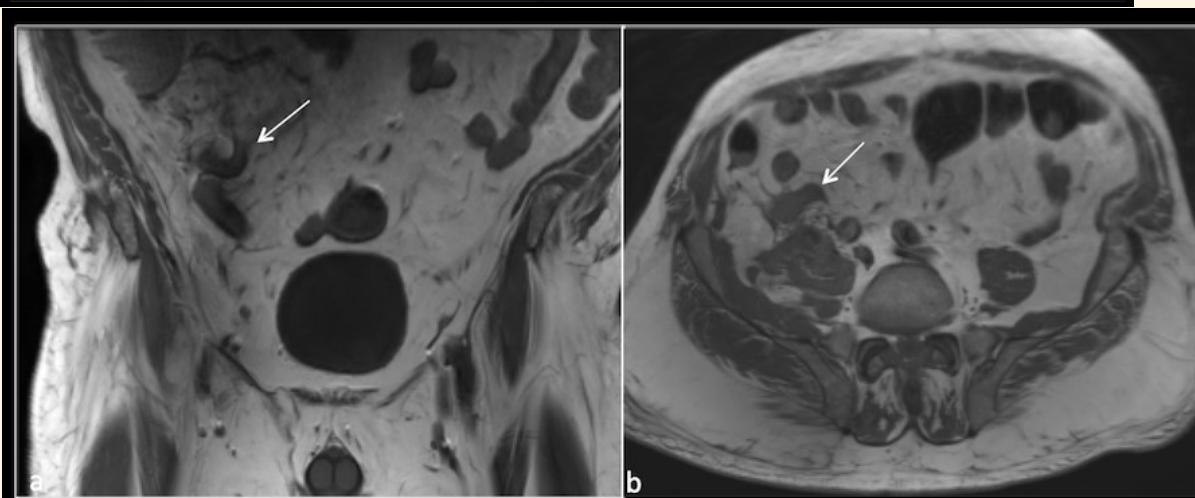


Fig 4 - A CT of the abdomen and pelvis with contrast confirmed the diagnosis of acute appendicitis complicated with right psoas muscle collection.

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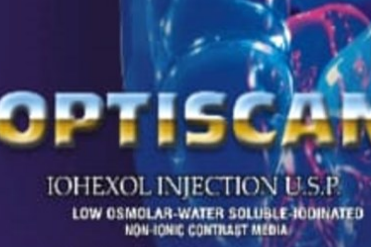
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radioactivity		
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iodine	90	90
iodine:iodine ratio	2.0	0.5

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Hyperlinks of academic material published on YouTube by
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1	Imaging of acute Pancreatitis—Dr. Anirudh Kohli
2	USG of rotator cuff - Dr. P. K. Srivastava
3	PET CT Physics - Dr. Sikandar Sk.
4	PET CT in Neurology - Dr. Sikandar Sk.
5	CAR - Case of the week - Case 1 - Megalencephalic leukoencephalopathy with subcortical cysts. - Dr. Viral Parekh
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15	CAR - Tribute to Wilhelm Conrad Roentgen - Immortal Roentgen.
16	CAR - Case of the week - Case 11 - Dacryocystocele with anatomy of Nasolacrimal apparatus. - Dr. Viral Parekh
17	CAR - Case of the week - Case 12 - Tubercular osteomyelitis - Dr. Nivedita Chakraborty
18	CAR - Case of the week - Case 13 - Marchiafava Bignami disease - Dr. Viral Parekh
19	CAR - Case of the week - Case 14 - Parosteal Sarcoma - Dr. Nivedita Chakraborty
20	CAR - Case of the week—Case 15 - Adrenal haemangioma - Dr. Viral Parekh



Dr Himansu Shekhar Mohanty,
DNB, Fellow in Oncoimaging (European society of Radiology)
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BRONCHO PLEURAL FISTULA A RARE COMPLICATION FOLLOWING **PERCUTANEOUS LUNG BIOPSY**

Clinical Presentation: A 60 year male chronic smoker came to our department for trucut lung mass biopsy with possible diagnosis of lung cancer. On per-operative evaluation patient had COPD symptoms with maintained oxygen saturation. Patient was planned for CT guided lung biopsy after pre procedure assessment.

Case Discussion:

Planning chest CT revealed diffusely scattered multiple lung nodules with a large lung mass on the right side. There was evidence of interstitial lung disease. In view of severe lung parenchymal disease patient was counselled for high risk of post procedure pneumothorax. Patient agreed to undergo the procedure. Percutaneous lung biopsy was done in prone position using 18Gx16cm biopsy gun in coaxial method (Fig A). The patient developed massive pneumothorax following lung biopsy. In view of decreased oxygen saturation, a 12F pigtail was placed on the CT table and later upgraded to 18F. Patient was shifted to ICU and remained under observation. However persistent pneumothorax was seen even after one week and patient was on high oxygen demand. Pneumothorax was increased when the ICD tube was clamped. In this clinical scenario possibility of bronchopleural fistula (BPF) was diagnosed. Serial chest radiograph did not show any improvement in the pneumothorax. ICD tube was kept for 21 days. On 22nd day pleurodesis was done by instillation of 5gm talc through the ICD tube. Obliteration of pleural space was confirmed and ICD tube was removed. No further pneumothorax was seen in the follow up chest radiograph.

Conclusion:

BPF is a rare but severe complication of percutaneous lung biopsy. Early diagnosis and continuous patient monitoring is required. If pneumothorax persists for 3-4 weeks after ICD placement, pleurodesis should be considered.

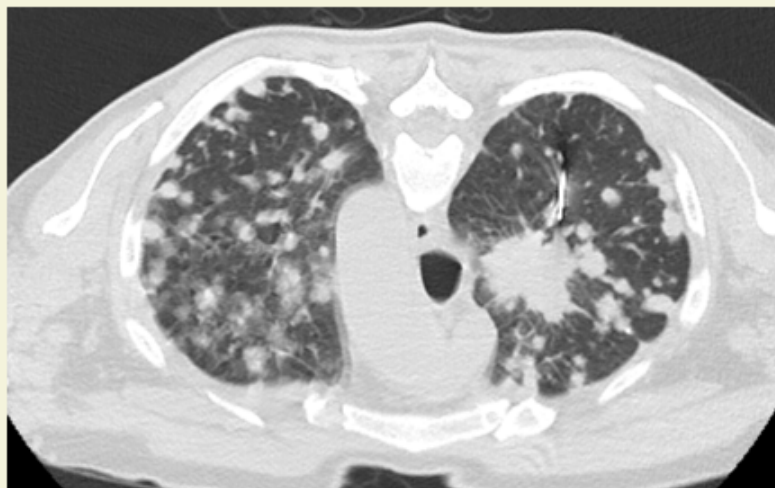


Fig. A axial section of CT chest in prone position shows multiple lung nodules and trucut biopsy needle approaching the lung mass on the right side.

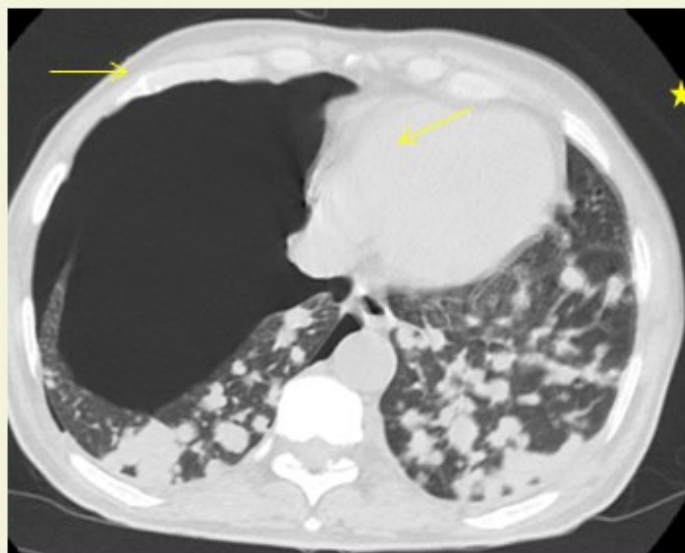


Fig. B: Axial section of CT chest in supine position shows large pneumothorax on the right side (yellow star).



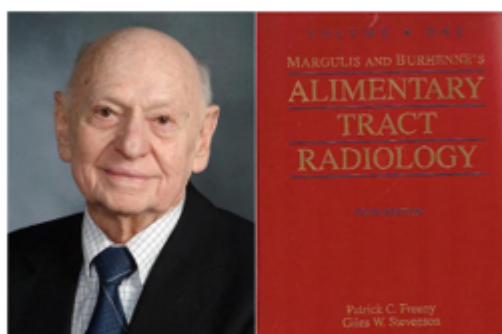
Fig. C: Frontal chest radiograph showing persistent right pneumothorax (yellow arrow), multiple lung nodules and ICD tube on the right side



Fig. D: Frontal chest radiograph showing post pleurodesis status and removal of ICD tube.

From the pages of history

Alexander R. Margulis – the pioneer of Gastro-intestinal Radiology
(tribute on his birth centenary)



"From its very inception, gastrointestinal radiology was at the forefront of radiology, combining physiologic and anatomic information. From evaluation of oesophageal motility to the first depiction of gastric ulcers and carcinomas of the alimentary tube, gastrointestinal radiology became indispensable to physicians and surgeons. Improvements in fluoroscopic and radiographic equipment, the tilting table, the image intensifier with the television train, the introduction of selective visceral angiography with safer contrast media and, more recently, digital subtraction angiography, digital ultrasound (US), colour Doppler US, computed tomography, and magnetic resonance (MR) imaging--all these advances have made imaging diagnosis more precise and specific. A new modality--localized tissue MR spectroscopy--should offer an insight into metabolism and suggest optimal modes of treatment and follow-up. The gastrointestinal radiologist of the future will have to be multimodality trained. A new generation of alimentary tract interventional radiologists will further the trend toward less invasive surgical therapy. No end of advances is in sight." --Alexander R Margulis

Alexander R. Margulis was a pioneer radiologist in gastrointestinal radiology and was a frequent visitor to India to attend National and other conferences of Indian Radiological and Imaging Association. His mobility, reflex, updated knowledge was impressive even at the age of 97.

I believe many of us have interacted with this ever-young Radiologist.

He was Diwan Chand Agarwal Memorial orator of IRIA during the year 1983

Dr Margulis was born on **March 31, 1921**, in Belgrade, Serbia. He was a 20-year-old medical student at the time of the German invasion in April 1941. He and his family escaped Nazi persecution in 1944, and he was fortunate to be selected as one of 1000 refugees allowed by President Franklin Roosevelt to travel from Italy to Oswego, NY, during World War II.

After the war, Dr Margulis completed his MD degree at Harvard Medical School (Boston, Mass) and performed his residency in diagnostic radiology at the University of Michigan in Ann Arbor. In 1954, he joined the faculty at the University of Minnesota (Minneapolis, Minn). After Army service in the U.S. Army Medical Corps at Fort Bragg (Fort Bragg, Calif), he joined the faculty

From the pages of history

at Washington University in St Louis (St Louis, Mo) as an assistant professor and quickly rose through the ranks to professor in 1961. In 1963, Dr Margulis was recruited as chairman of the Department of Radiology at University of California, San Francisco (UCSF, San Francisco, Calif) and served in that capacity for 26 years

He was married to Hedvig Hricak, also a radiologist.

Publications

He has published over 280 peer-reviewed scientific articles. He has also authored or co-authored 21 books:

- *Alimentary Tract Radiology*, (C.V. Mosby, St. Louis),
- *Clinical Magnetic Resonance Imaging* 1983, Radiology Research and Education Foundation
- *Biomedical Magnetic Resonance Imaging* 1984 Radiology Research and Education Foundation
- *Be in Charge* (Harcourt, 2000)

Honours /Accolades

- --a member of the Institute of Medicine of the US National Academies, and a foreign member of the Russian Academy of Medical Sciences and the Serbian Academy of Arts and Sciences.
- Between 1980 and 2005 he was awarded **eight honorary doctorates**: One from the Medical College of Wisconsin and 7 universities in other countries: Université catholique de Louvain, Belgium; Karolinska Institute, Sweden; Ludwig Maximilian University of Munich, Germany; University of Toulouse, University of Aix-Marseilles, and University of Montpellier, France, and the University of Novi Sad, Serbia.
- He has been President of the Society of Gastrointestinal Radiology, the Association of University Radiologists, the San Francisco Radiological Society 1967. the Society of Chairmen of Academic Radiology Departments, the California Academy of Medicine, and the Society of Magnetic Resonance in Medicine.
- In 1989, Margulis received the J. Allyn Taylor International Prize in Medicine together with Lawrence Crooks.
- The Radiological Society of North America (RSNA) established the **Alexander R. Margulis Award** for Scientific Excellence in 2012 in his honour
- **The Margulis Society at the University of California, San Francisco, was founded in his honour.**
- In 2013, Margulis received the Leadership Luminary Award from the Radiology Leadership Institute of the American College of Radiology.
- In 2014 Margulis was appointed to the rank of Chevalier of the French Legion of Honora by the French President.
- He had the University of California Medal and the Gold Medal of the Radiological Society of North America.



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Joint Editor – IJRI
Secretary, Musculoskeletal Society of India.

MR imaging of post-operative shoulder joint - Impingement surgery – subacromion decompression

Arthroscopic subacromion decompression includes

- Diagnostic arthroscopy
- Anterior and posterior acromion resection
- Resection of acromio-clavicular joint osteophytes
- Bursectomy

Surgeries for subacromion decompression are:

- Arthroscopic subacromion decompression (ASD)
- For acromioclavicular osteoarthritis - arthroscopic resection of the acromioclavicular joint (ARAC)
- Clavicular osteophytosis - resection of the distal clavicle (Mumford procedure)
- Resection of the coracoacromial (CAL) ligament
- In patients with associated rotator cuff tear – rotator cuff repair is also done

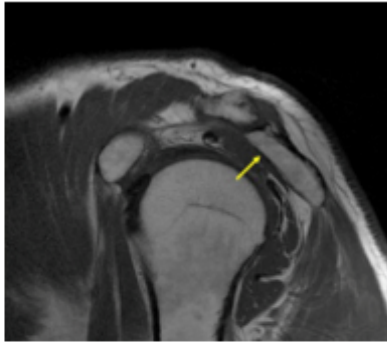
Subacromion decompression



PRE-OP: Subacromial enthesophyte (E) projects from the anteroinferior surface of the acromion (A) and impinges on the adjacent rotator cuff tendon



POST-OP: Curved undersurface of the acromion (A) is flatter. Resection of the coracoacromial ligament (CAL) is represented by the absence of acromial attachment



Post- acromioplasty:

Sagittal T1W shows morphology of acromion after anterior acromioplasty
The acromion configuration changes from curved to flattened undersurface

Normal post-operative findings:

- Flattened / concave acromion undersurface
- Widening of AC joint - if the Mumford procedure was performed
 - acromioclavicular distance is increased to 1-2 cm
 - coracoacromial ligament might be absent or replaced by scar tissue formation
- Low acromio-clavicular bone marrow signal (fibrosis)
- Bursitis like signal in SA- SD space & ACJ (granulation tissue)
- Later replacement of granulation tissue with fibrotic scar tissue in SA-SD space
- The subacromial fluid might communicate with fluid within the acromioclavicular joint (geyser sign)

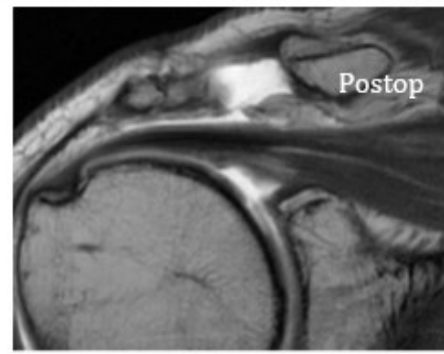
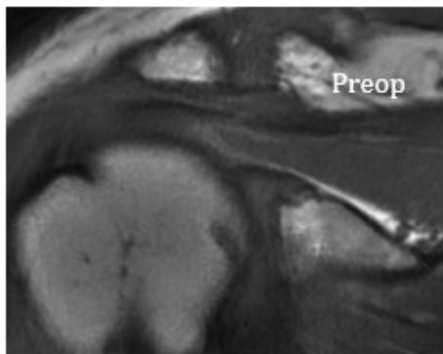
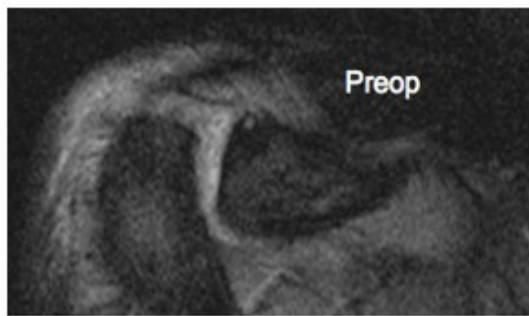
Distal clavicular resection – Mumford procedure
(Used for AC joint osteophytes)



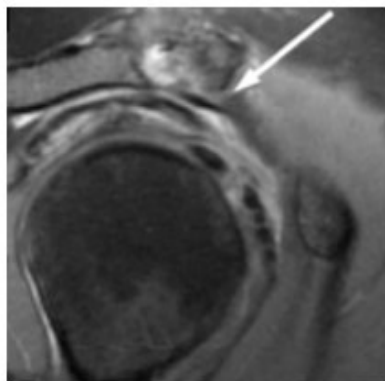
PRE-OP : Note the proximity of the distal part of the clavicle (C) to the acromion (A)



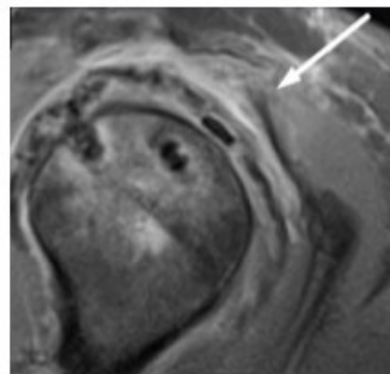
POST OP : Increased acromioclavicular distance increases 1–2 cm



There is debridement of distal clavicle and release of acromio-clavicular joint capsule. Post-operative foci of increase susceptibility are seen on Gradient images.



PRE- OP: CAL origin is visualized



POST- CAL resection along with rotator cuff repair: note the transected ligamentous remnant

Abnormal post-operative findings:

- Residual impingement – look for acromio-clavicular joint osteoarthritis or thickened coraco-acromial ligament (CAL)
- Other causes that may be overlooked before surgery – rotator cuff tear, glenohumeral instability, pericapsulitis
- Postoperative defects of the deltoid muscle if open surgery – deltoid dehiscence and axillary nerve injury
- Heterotopic ossification
- Acromial fracture

Recurrent subacromion impingement

- This can occur in delayed fashion with reformation of spurs
- It can also occur due to incomplete or overzealous acromioplasty
- Surgeons burr off the subacromial spur and attempt to make the undersurface flat; if there is a residual lateral point or angle at the mid portion, recurrent impingement may occur
- If the burr artifact is too severe, CT maybe more useful to evaluate the acromial morphology

Subacromial spur
Lateral impingement



Optimal acromioplasty
Flat acromion under surface



Suboptimal acromioplasty
Leaving a lateral ridge that may lead
to recurrent impingement



Suboptimal acromioplasty
Lateral spur has been removed
leaving a medial ridge that results
in proximal impingement



ELECTROCURATIVE

Reimaging Cure



WE DEAL WITH

- USG EQUIPMENTS
- DIGITAL RADIOGRAPHY & FLUOROSCOPY
- CT SCAN MACHINES
- MRI MACHINES
- ENDOSCOPY MACHINES
- ECHOCARDIOGRAPHY
- PET MACHINES

(WE PROVIDE BOTH
NEW & REFURBISHED
DEVICES)

- CONTRAST MEDIA
- ENTIRE PATHOLOGY
CLOSE SYSTEM
- SURGICAL IMAGING
C ARM
- CATH LAB IMAGING
- ANAESTHESIA
WORKSTATION
- ICU VENTILATORS
- PATIENT MONITORS
- DEFIBRILLATORS

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AND HARDWARE
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OPERATIVE TABLE
- OBSTETRIC OT TABLE
- HOSPITAL BEDS
- OT LIGHTS
- INCUBATORS &
INFANT WARMERS
- HOME CARE
SOLUTIONS
- OXYGEN
CONCENTRATOR
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VOLUMETRIC pump



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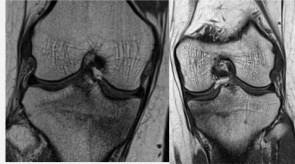
Email: info@electrocurative.com www.electrocurative.com



Dr. Hirak Ray Choudhury, MD
Consultant Radiologist & Head,
Dept. of Radiology,
AMRI Hospitals,
Kolkata

MSK Radiology Sign-Box

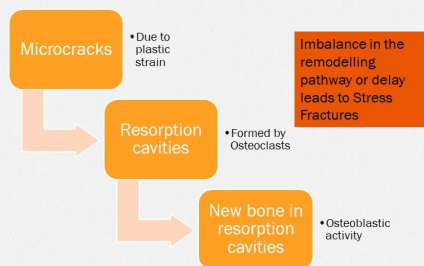
- 33 year old female army officer on field duty.
- Sudden bilateral knee pain.



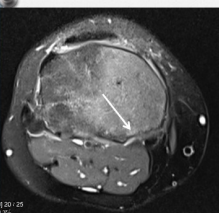
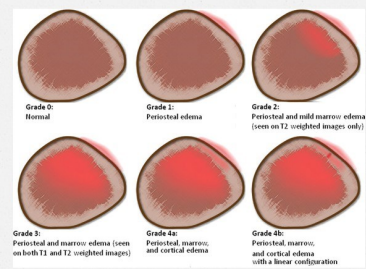
Stress and Strain

- Stress** – Ability of bone to absorb mechanical load.
- Strain**– Ability to deform without failure.
- Strain within elastic range– Bone recoils back to normal.
- Strain in Plastic range creates micro-cracks.
- Stress, Fatigue or Insufficiency fractures develop when micro-cracks exceed the capacity of repair.

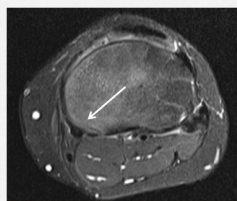
Wolff's law of bone remodelling



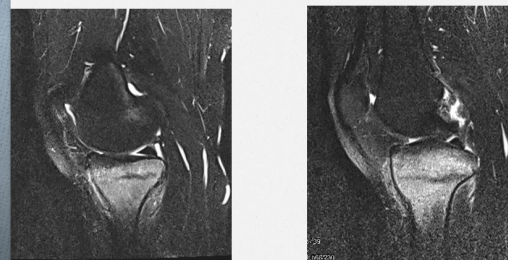
Fredericson grading of medial tibial stress syndrome



Fredericson Grade III in right and grade IVa in left tibia.



Medial tibial stress syndrome with bilateral fatigue fractures



When can she return back to activity?

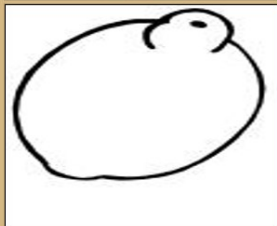
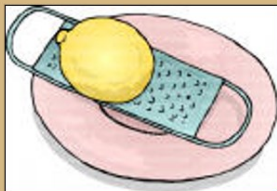
- Medial Tibial stress syndrome with bilateral tibial fatigue fracture.
- Female athlete triad: Disordered eating, Osteoporosis, Amenorrhoea.

- Site of injury with high or low ratio of trabecular to cortical bone determines time of return.
- Grade I and II injuries don't show any change in time of return
- Grade III and IV longer time to return for sites with higher trabecular Vs cortical bone- (38 Vs. 18 wks.).

Ref: Nattiv A, Kennedy G, Barrack MT, et al. Correlation of MRI grading of bone stress injuries with clinical risk factors and return to play: a 5-year prospective study in collegiate track and field athletes. *Am J Sports Med.* 2013;41(8):1930-1941.

FOOD SIGNS IN RADIOLOGY - Dr. Viral Parekh, DMRD, DNB.

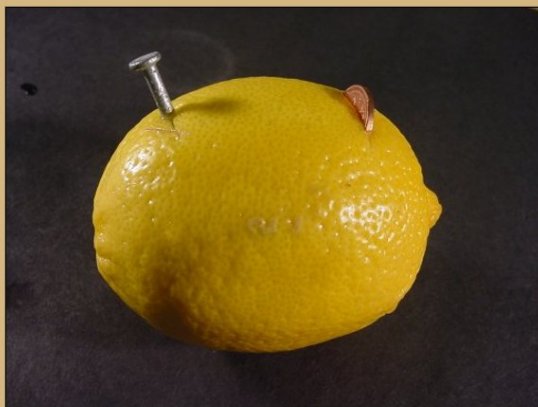
LEMON SIGN



LEMON SIGN



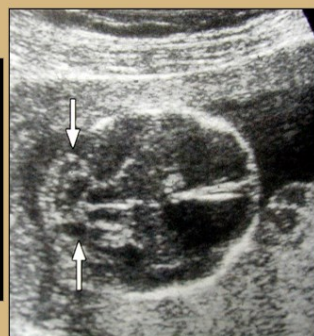
LEMON SIGN



LEMON SIGN

- Seen in antenatal US performed in 2nd. Trimester.
- The cranial vault appears lemon shaped because the frontal bones are flattened or concave.
- Marker for open spina bifida – seen in 98% of cases.

BANANA SIGN



BANANA SIGN

- Seen in antenatal US.
- Refers to banana shaped configuration of cerebellum.
- The cerebellum appears banana like because it is wrapped around the posterior brain stem due to downward traction of spinal cord.
- Associated with neural tube defects.

Hydronephrosis due to cystocele - Dr. Viral Parekh, DMRD, DNB.

A 55 years old female was found to have right hydronephrosis. USG was not able to detect cause. So, an IVP was done.

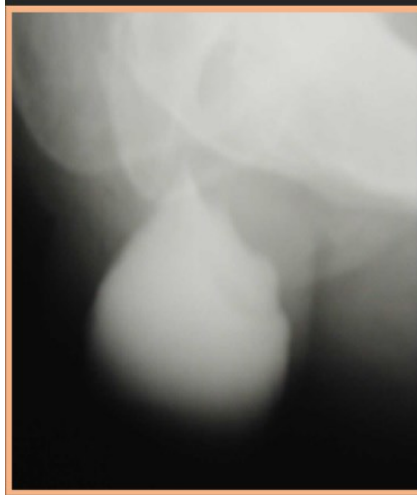
Right
hydroureter
onephrosis



Right hydrouretero-
nephrosis



Hydronephrosis due to cystocele - Dr. Viral Parekh, DMRD, DNB.



Final Diagnosis
is
Cystocele
causing
hydronephrosis.

A cystocele, also known as a prolapsed bladder, is a form of pelvic organ prolapse where the bladder descends inferiorly and posteriorly into the vagina and perineum. It may be accompanied by prolapse of other pelvic organs.

There are three main stages of a cystocele prolapse

- **Stage 1** – The bladder has protruded only a short distance into the vaginal wall and symptoms are mild.
- **Stage 2** – The bladder has protruded sufficiently into the vagina that it has reached the opening of the vagina. This protrusion may be visible from the outside of the vagina temporarily through coughing or straining.
- **Stage 3** – The bladder has significantly protruded into the vagina and is permanently visibly bulging from the outside of the vagina.



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**A Platform For Radiology
Education & Interaction**

Calcutta Academy of Radiology was formed on international day of Radiology in 2019, that is on 8th. November, 2019 to promote Radiology education, keeping in mind Residents as well practicing Radiologists.

Since then we are on WhatsApp and Telegram, where thousands of cases have been discussed by members from all over the world and in the process we are sharing our experiences and helping each other. These social media platforms have turned out to be great learning tools.

We had organized a half day CME also on GI Radiology in February, 2020. We have plans to organize more such CME programmes in future when world recovers from this ongoing pandemic.

We are on YouTube also where we regularly post teaching videos and in the process try to propagate Radiology as much as possible.



Next issue will be published in June 2021

We will be bringing out such Newsletters with a frequency of one issue every two months. So, next issue will be published in June, 2021.

We are hereby inviting good interesting cases and original work from our fellow Radiologists, which will be published on merit basis.

So, I request all of you to contribute to this Newsletter. Please send your material in Word format with good quality images. Please send your photograph and details of your place of work with email address also.

Your material should reach us by 15th. Of May, 2021. You can send the word file to our abovementioned email address or you can WhatsApp it to above-mentioned three phone numbers.

On our YouTube channel, we are presenting a new case every week and there is good response to such teaching videos. I hereby request all Radiologists to share their teaching videos with us and if they contain good teaching material, we will surely publish it on our channel. So friends, during this trying time, stay away from depression by engaging yourself in academic activities.

Our Telegram group is lagging behind in academic activities as compared to two WhatsApp groups, so I request all of

you to join our Telegram group. Since, WhatsApp restricts the number of members to 256 only, whatever activity going on there is not helping the whole Radiology community.

Telegram can add up to whopping 200,000 members. So, if we post our study material there; it will reach to and benefit huge number of members.

So friends, take care and be safe.

So, see you all in next issue of CAR newsletter.

So long,

Anup Sadhu, Bijon Kundu and Viral Parekh.

