

Calcutta Academy Of Radiology

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Emerging techniques in Radiology - Dr. Viral Parekh

Hi Namaskar friends,

On behalf of the CAR family, I wish all of you a very happy 75th. independence day. During these last 74 years, Radiology has advanced tremendously all over the world as well as in India and the ongoing pandemic has given a new dimension to Radiology and Radiologists.

Recent advances in imaging are quite exciting and will help the doctors and patients in a very big way. One such is 3D printing or computed aided designs, which produce highly detailed models of human organs and help in a great extent to plan surgeries. MR elastography is also coming in a big way to help in diagnosing liver and breast diseases. MR guided Ultrasound is an MRI-based therapeutic technique that makes use of ultrasound to remove the target tissue. 3D mammography, hybrid imaging and artificial intelligence are also helping in the diagnosis and management of various disease in a great way.

Radiology is refining the clinical practice and surgery also. According to a research published in American Journal of Obstetrics and Gynecology, the transabdominal Ultrasound can examine a fetal head descent and assist in vaginal birth for fetuses.

So, these new techniques are going to help the diagnosis and management of disease in a great way. Young Radiologists should take full advantage of emerging imaging methods and train themselves to become masters in their trade. I wish I were 2 decades younger to learn these emerging techniques.

During this ongoing pandemic, Teleradiology has been accepted as a norm and it has been able to help the patients and hospitals in a big way. But, in our country it is practiced in a very unmonitored way and most of the companies are owned by businessmen, who offer peanuts to Radiologists for reporting. It is high time that Teleradiology services are owned by Radiologists and it is practiced in a more standardized and ethical way.

This issue would not have been possible without the help of Dr. Bhavin Jankharia, Dr. Rajesh Botchu and Dr. Ankur Shah. I sincerely thank all of them.

the next issue of our newsletter will be published on 1st. Of October. Till then take care and stay safe.

CAR wishes a very happy independence to all of you.



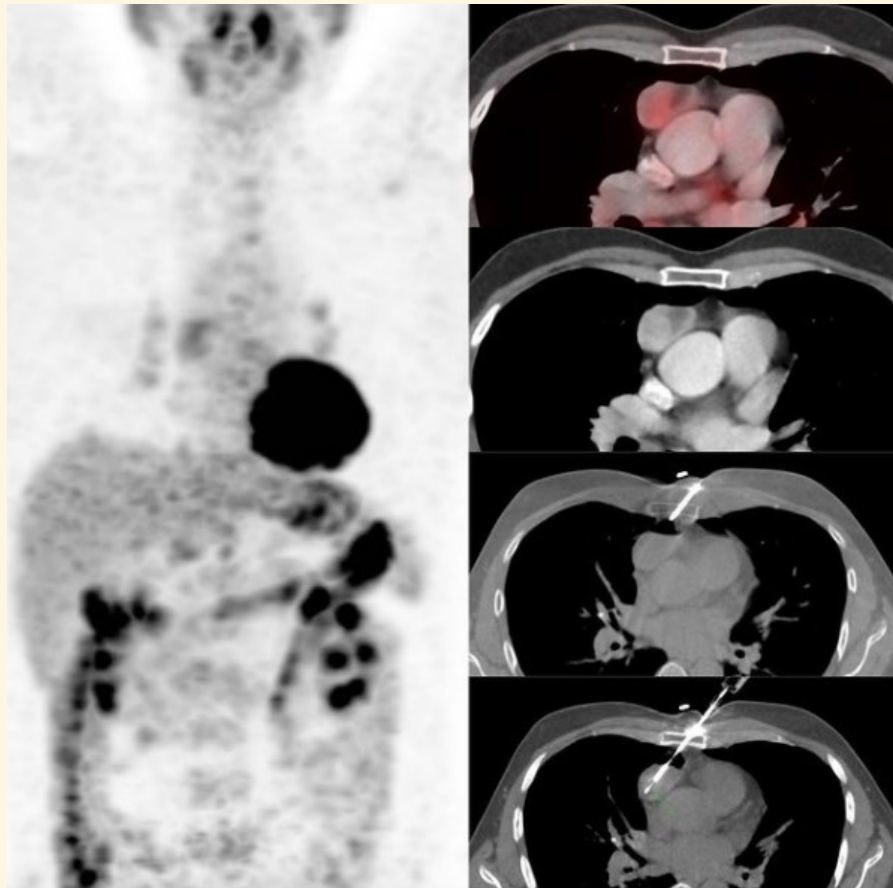
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Consultant Radiologist.

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Twitter: [@bhavinj](https://twitter.com/bhavinj)

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 - Thymoma

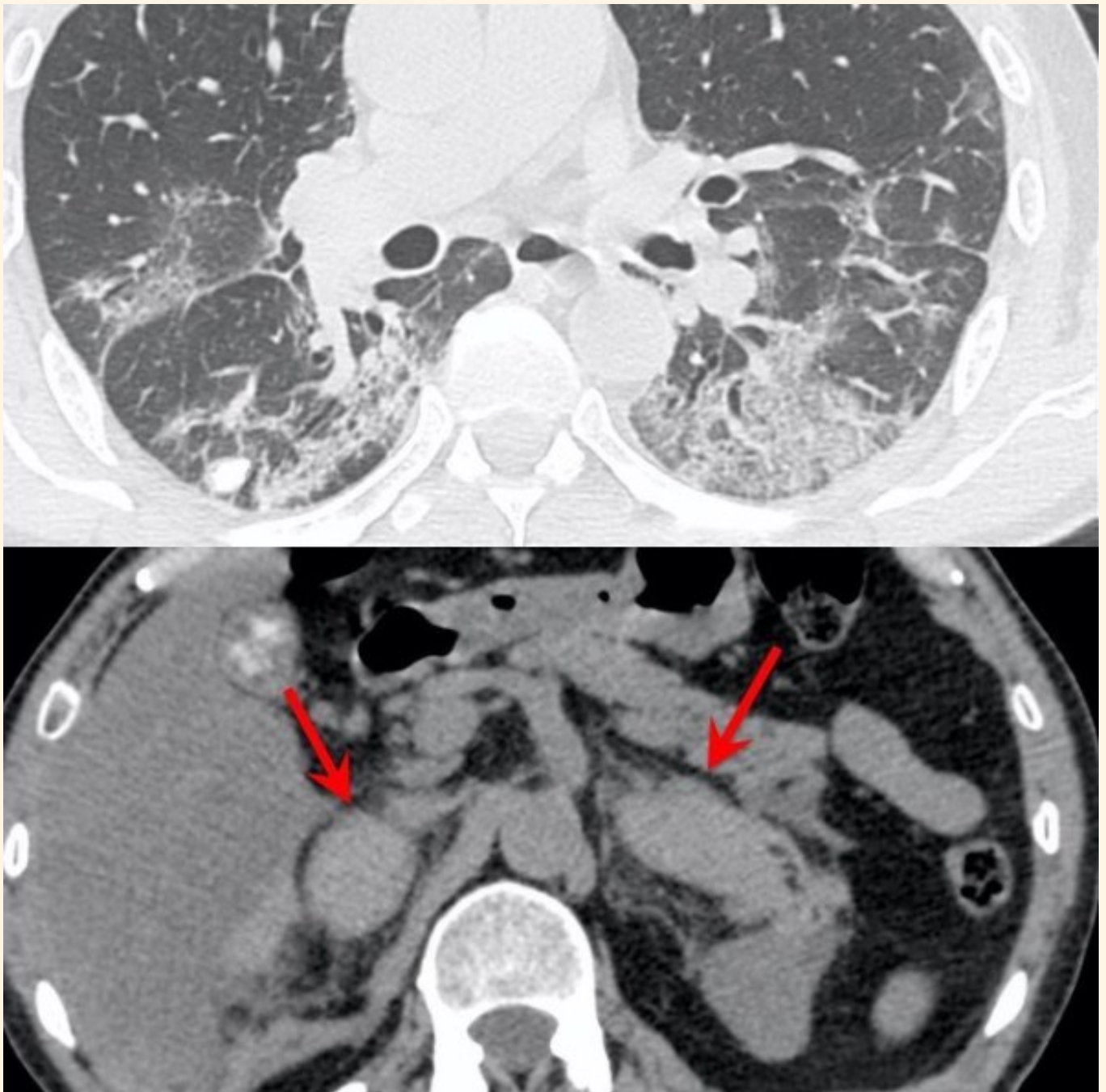


This is a 53-years old man who had an incidentally discovered prevascular space mass. PET/CT showed no other lesion.

He came for a biopsy. The only approach was through the lung, so I chose a trans-sternal approach directed along the long axis of the lesion through the lung using a 20G coaxial biopsy gun. A trans-sternal approach is safe and this can be done without sedation, by just infiltrating the periosteum of the anterior cortex. The bone is thin enough that a light tap of the mallet is sufficient to push the needle through. The only disadvantage is the inability to manoeuvre the needle if needed.

The diagnosis was thymoma WHO B type. There was no complication.

Case II

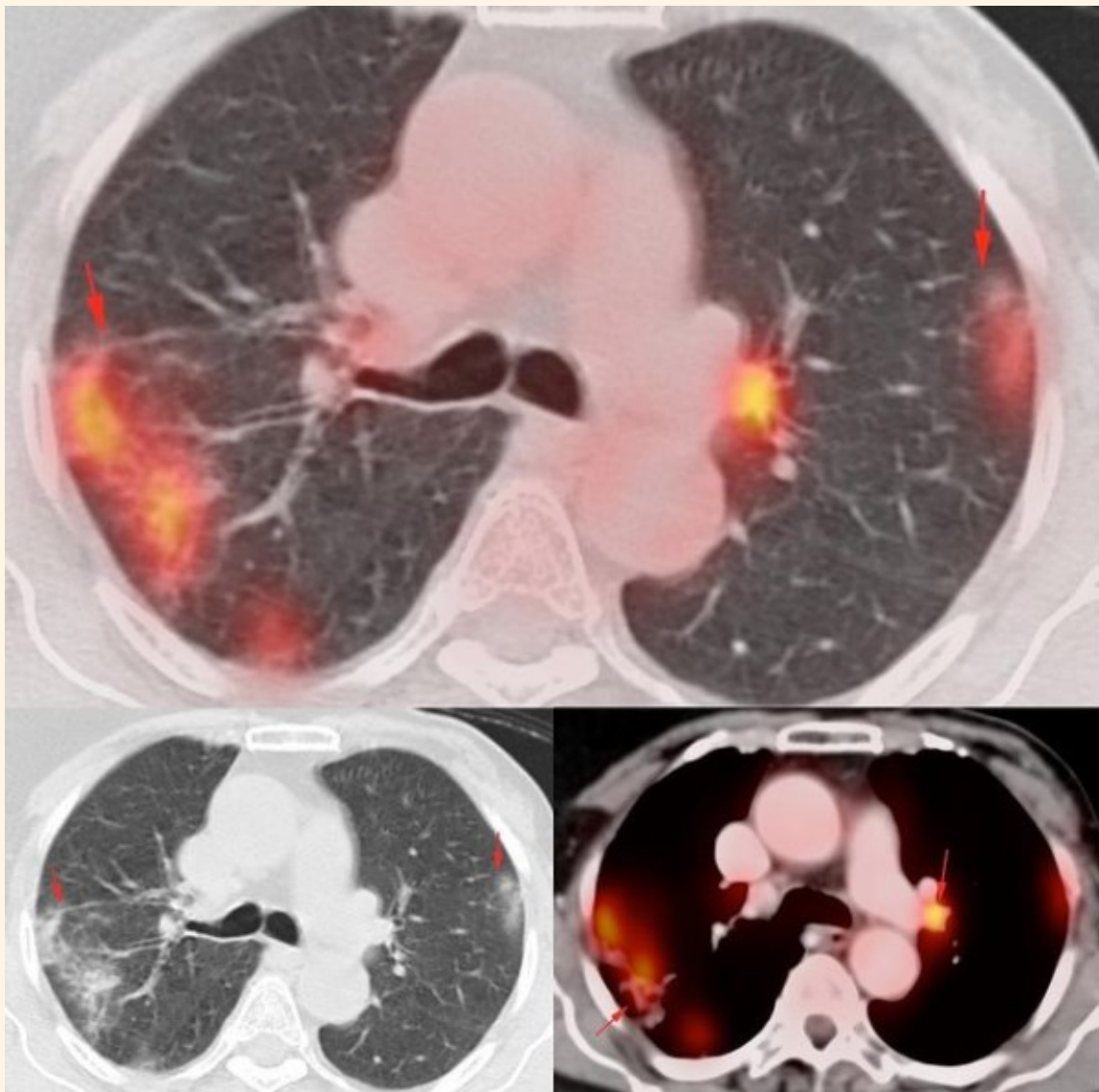


This 70-years old man with COVID-19 has a CT scan showing typical lung findings. He also has bilateral adrenal haemorrhage in the upper abdomen, which was unsuspected clinically.

There have been a few case reports of patients with adrenal haemorrhage and insufficiency in the setting of COVID-19, likely related to a coagulation disorder. This can be life-threatening causing acute adrenal insufficiency.

Unfortunately, this patient did not survive. He collapsed the next day before his COVID-19 could be proven or any further testing could be done.

Case III



This 59-years old lady came for a follow-up PET/CT for Ca breast evaluation. She had no respiratory symptoms.

The lung shows typical findings of COVID-19 with uptake on the PET. Almost all patients with incidental COVID-19 show some level of activity, which likely lasts for some time, even after the RT-PCR becomes negative. In these patients, we never really know at what stage of the disease they are when we pick up these findings on PET. Some are tested, some not, some are RT-PCR

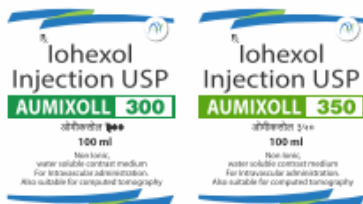
Almost all of them also have small active nodes, as we see in the left hilum in this patient. We have to be careful, especially with less typical patterns, of not confusing COVID-19 with chemotherapy related lung injury.

Comprehensive Imaging Solutions

Rx

AUMIXOLL

Iohexol Injection 300 / 350 - 100 ml/50 ml USP



Rx

AUMIWIZ

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Rx

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Rx

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Sacroplasty

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Department of Musculoskeletal Radiology, Royal Orthopaedic Hospital, Birmingham, UK
No conflicts of interest/ No financial disclosures

Sacroplasty is percutaneous image guided cement augmentation pain relieving procedure that involves insertion of cement into both sacral alae. This is performed for sacral insufficiency fractures and pathological fractures. Sacroplasty stabilizes the fracture and relieves pain. This is performed under sedation with insertion of needles in both sacral ala in short axis or long axis with fluoroscopic or CT guidance. An average of 4 ml of cement is inserted during Sacroplasty. Several studies have shown this to be relatively safe procedure providing significant and durable pain relief.

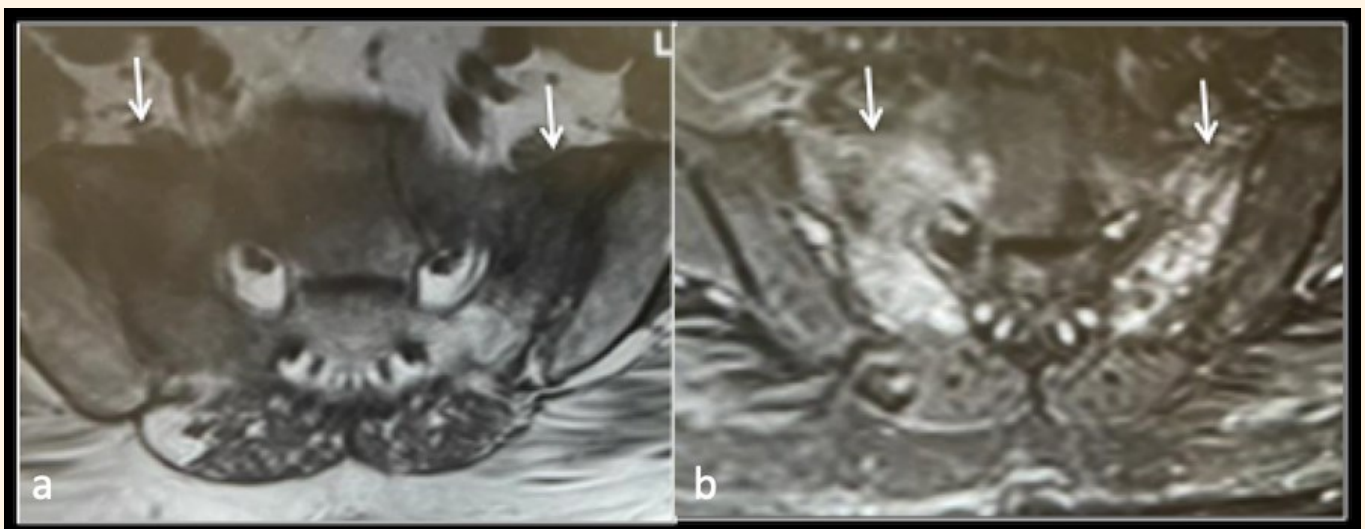


Figure 1

70-year-old male with sacral insufficiency fractures. Axial T1(a) and STIR (b) showing bilateral sacral insufficiency fractures with marked osseous edema (arrow)

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Idiopathic Spinal Cord Herniation

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No conflicts of interest/ No financial disclosures

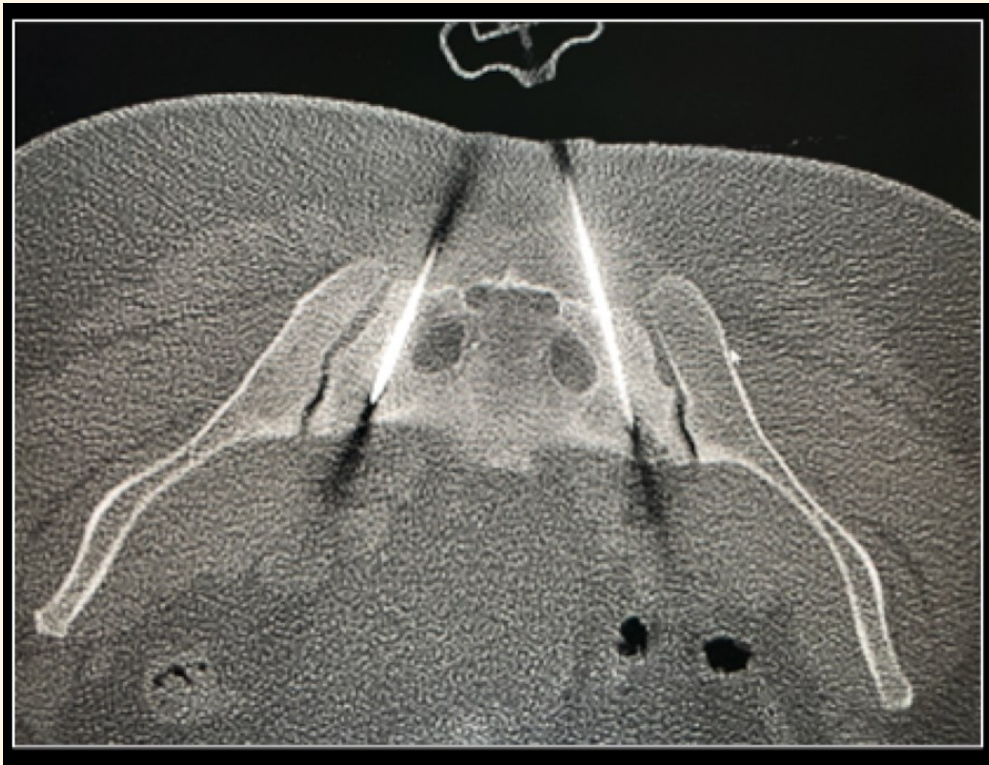


Figure 2

Axial CT showing needles in both sacral ala



Figure 3

Axial (a) and coronal (b) showing cement in both sacral ala

Hyperlinks of academic material published on YouTube by Calcutta Academy of Radiology

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
6	CAR - Case of the week - Case 2 - Adenocarcinoma of terminal ileum - Dr. Viral Parekh
7	CAR - Case of the week - Case 3 - Stener lesion - Dr. Nivedita Chakraborty
8	CAR - Case of the week - Case 4 - Anterior shoulder dislocation - Dr. Nivedita Chakraborty
9	CAR - Case of the week - Case 5 - Secondary intracranial hypotension. - Dr. Viral Parekh
10	CAR - Case of the week - Case 6 - Intramyocardial Dissection - Dr. Ritu Agarwal
11	CAR - Case of the week - Case 7 - Radiation Necrosis and BT - RADS - Dr. Nivedita Chakraborty
12	CAR - Case of the week - Case 8 - Undisplaced right ulnar styloid base fracture - Dr. Nivedita Chakraborty
13	CAR - Case of the week - Case 9 - Hypoglycaemic encephalopathy. - Dr. Viral Parekh
14	CAR - Case of the week - Case 10 - Myocardial annular dysjunction - Dr. Ritu Agarwal
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

**Hyperlinks of academic material published on YouTube by
Calcutta Academy of Radiology**

21	CAR - Case of the week - Case 16 Patellar GCT - Dr. Nivedita Chakrabarty
22	CAR - Case of the week - Case 17 - MEN Syndrome - Dr. Sayan Sarkar
23	CAR - Case of the week - Case 18 - Langerhans cell histiocytosis - Dr. Sayan Sarkar
24	CAR - Case of the week—Case 19 - Hepatic angiomyolipoma - Dr. Viral Parekh.
25	CAR— Case of the week - Case 20 - Cirroid aneurysm - Dr. Viral Parekh

We have a new blog , where we publish cases, quizzes
and various other education materials. Please follow the
blog.

Link is here

We are on YouTube
You can send your good
case to us. We will
publish it in our channel.



INFECTIONS CAUSING AIRWAY COMPROMISE IN PAEDIATRIC AGE GROUP

Dr Bijon Kundu

Inflammatory conditions of the upper airway in infants & children are common and occasionally can be very serious. Inflammation of the structures involving the pharynx and larynx are the reasons which cause the airway compromise and present most commonly with an inspiratory stridor. However, children often also present with an expiratory wheeze if the airway is compromised beyond the carina or distal airway compromise. Distinguishing the two groups may be clinically difficult and hence radiology helps in understanding the underlying pathology.

Differential Diagnosis of acute stridor needs to be considered in an approach understanding the age and site of affection as described below :-

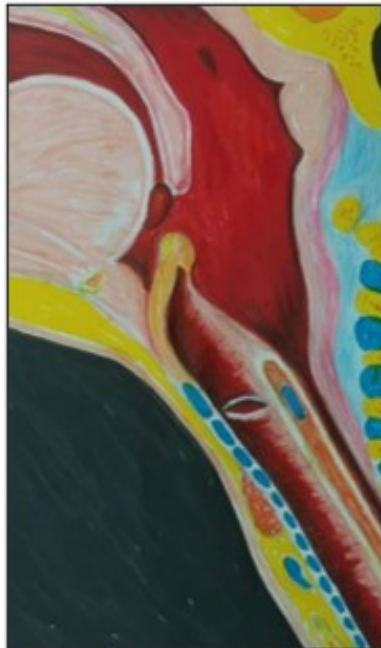
Croup - or also known as Acute Laryngotracheobronchitis. It is a self-limiting viral inflammation of the airways causing symmetrical subglottic oedema thereby giving rise to a croupy cough. It affects young infants with a mean age of one year and can affect children from 6 months to 3 years of age.

Plain radiographs can be immense help.

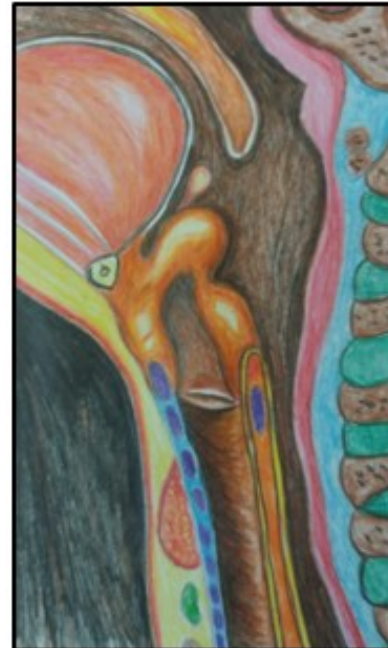
A frontal radiograph can evaluate loss of normal shoulders (lateral convexities) of the subglottic trachea secondary to the subglottic oedema causing the classic "Steeple Sign or inverted V" Sign.

The lateral radiograph demonstrates the narrowing of the subglottic trachea or even loss of definition of that region. However, the normal epiglottic and ary-epiglottic folds can be appreciated. In an expiratory image, the hypopharynx may be collapsed. Therefore, the advice is to ensure that the neck of the child is extended & to avoid imaging while the child is swallowing.

Epiglottitis - is defined as airway obstruction secondary to infectious inflammation of the epiglottis and surrounding tissues. The mean age of presentation is about three and half years. However, with present day vaccinations, mean age is about 14 and half years. It is suggested that organisms which may cause this condition is *Haemophilus influenzae*, *Pneumococcus* or *Streptococcus*.



Normal Epiglottis



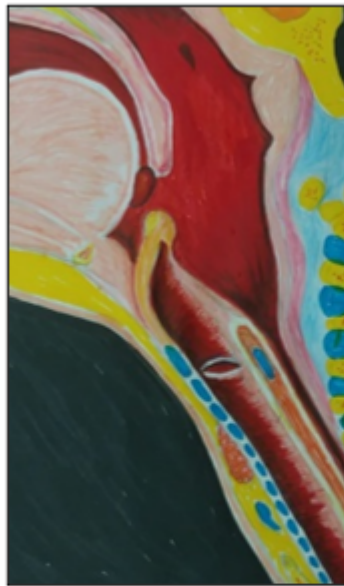
Epiglottitis

Plain radiographs can demonstrate an enlarged epiglottis in case of epiglottitis. A lateral radiograph obtained in the upright comfortable position shows marked thickening of the epiglottis. There is also thickening of the ary-epiglottic folds extending from the epiglottis antero-superiorly to the arytenoid cartilage postero-inferiorly.

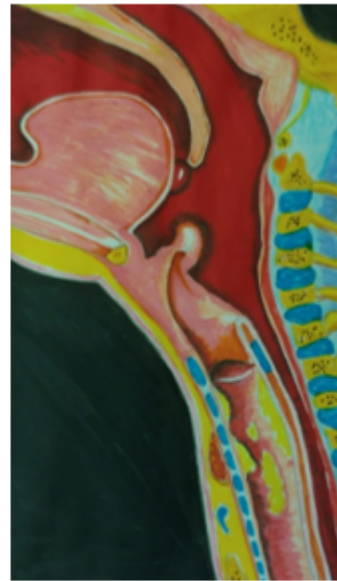
Normally, the folds are thin & convex inferiorly but when they are thickened become convex superiorly. The swelling of the epiglottis and ary-epiglottic folds are not seen on a frontal radiograph.

CT findings show symmetric edematous swelling of the larynx including the epiglottis, arytenoids & ary-epiglottic folds causing airway obstruction & ballooning of the pharynx. Contrast enhanced CT may demonstrate phlegmonous collection involving the epiglottis & adjacent soft tissues.

Exudative tracheitis - also known as Bacterial tracheitis, membranous croup or membranous laryngotracheobronchitis. Exudative tracheitis is defined having purulent infection of the trachea causing exudative plaques that form along the tracheal walls and slough as well as occlude the airway.



Normal Trachea



Exudative Tracheitis

There is a debate over whether the infection is caused primarily by bacterial infection or super infection following compromise of the respiratory mucosa secondary to viral affection. *Staphylococcus aureus* is most common etiology; however many other organisms have also been mentioned.

The mean age of presentation is about six to ten years of age. Plain radiographs can demonstrate linear filling defects (plaque-like irregularity) within the trachea. The frontal and lateral radiographs can suggest the above-mentioned findings, Symmetric or asymmetric subglottic narrowing in a child older than typically noted with croup raises the possibility of exudative tracheitis. However, a word of caution is that non adherent mucus can mimic membranes but clears out if the child coughs or on repeated films taken.

Retropharyngeal abscess - is defined as pyogenic infection involving the retropharyngeal space.

It is a potential space extending from the skull base superiorly to the level of the fourth thoracic vertebra or tracheal bifurcation inferiorly & laterally to the parapharyngeal spaces.

Widening of this space & is well demonstrated on plain radiographs and best confirmed on contrast enhanced CT scan studies. The retropharyngeal soft tissues typically contain fat and lymph nodes. Gas within the soft tissue is diagnostic of an abscess.

The mean age of presentation is about six to twelve months of age. If the patient's age is more than 3 years than the condition is much more concerning.

The most common cause of a retropharyngeal abscess is usually a preformation of a retropharyngeal lymph node or followed by injury from a foreign body. Less common causes are abscesses secondary to cervical osteomyelitis including tuberculosis.

Radiograph should be taken with the neck extended.

Lateral skiagram shows thickening of the retropharyngeal soft tissues. Soft tissues between the posterior aspect of the aerated pharynx and anterior aspect of the vertebral column should not exceed the diameter of the cervical vertebral bodies.

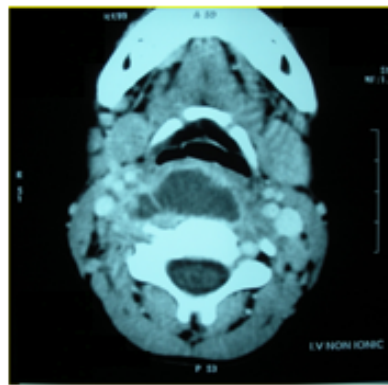
It must be noted that there can be "pseudo thickening" in infants who have short necks, that is why radiograph must be taken in full extension. There can be loss of cervical lordosis & displacement of the airway by enlarged soft tissues. If there is no gas, radiography cannot distinguish between cellulitis and drainable abscess.

CT findings include contrast enhanced studies to demonstrate the extent of the disease and help predict cases in which a drainable fluid collection is present. Well defined low attenuation with enhancing thick-walled rim is suspicious for a drainable fluid collection. CT is the cross-sectional imaging modality of choice.



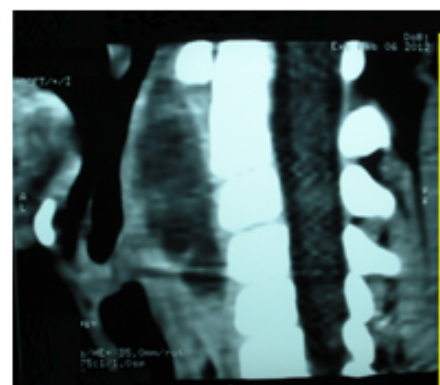
X Ray Lat View

(Widened retrotracheal space)



CECT Axial

Rim enhancing centrally hypodense lesion in retropharyngeal space)



CT SAG REFORMAT

MRI findings may be done rarely but the increasing concept of non-ionising modalities are becoming more popular. MR demonstrates low signal intensity well defined purulent fluid collection. T2WI shows a high signal intensity and T1 contrast enhanced images demonstrate a peripheral rim of enhancement.

Ultrasound may be done in certain cases. Grayscale sonography may be useful in evaluation of superficial neck infections or fluid collections. Colour doppler may be used in the evaluation for complications of deep neck infections such as internal jugular vein thrombosis.

So, the differential diagnosis of acute stridor includes Croup, Epiglottitis, Exudative tracheitis, Retropharyngeal abscess, laryngeal / tracheal foreign body, chronic esophageal foreign body, subglottic haemangioma, subglottic granuloma & pseudo thickening of retropharyngeal soft tissues (due to inadequate extension).

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Prof R N Kundu – one of the finest radiologists of the land had left us on 30th June 2020.

He had written this article in one of our publications during Annual conference of Indian Radiological and Imaging Association ,West Bengal Branch way back 2006.This article is reproduced for its unique flavor and to commemorate his 1st death anniversary.

DYNAMIC CHARACTERISTICS OF A DIODE VALVE

PROF.R.N.KUNDU

All this happened a long time ago. It was in the wet and windy autumn of 1957 that I went down to London from Humberside Hull to appear in the Part I Examination for Physics. At best of times, most of the Radiology students are reluctant examinees in Physics.

The Physics paper had the usual questions and problems with which one became familiar during the study except for one. Most innocently, the question had been asked to explain the “Dynamic Characteristics of a Diode”. Robertson’s Text book has described the static characteristics of a diode and a triode. But is never even whispered about the dynamic characteristics! Adding to the misery, there was a sum to go with it to check if one had understood the application.

One must remember that in those times there was no suitable Text Book of Physics for the Radiologists. Robertson’s book was preeminently meant for the Radiographers although Radiology students and Radiographers both studied it. So the only solution for me was to let the question go.

The practical examination was a few days later at “Barts”- St. Bartholomew’s Medical College Hospital. Bart’s is in the East end of London. That area was still recovering from the effects of World War II. Reconstruction and renovations were taking place at Bart’s too. The practical examination was held in the old building.

While I was engaged in the practical, my examiner had approached me for the viva voce. He straight-away asked me why I had not answered the question on “ Dynamic Characteristics” and the sum along with it.

How could I tell him that I was appearing from a non teaching country hospital where there was none to explain the Dynamic Characteristics let alone do the sum!

Benignly my examiner told me that he was giving me a second chance and asked me to do the sum while he was attending to another student. He returned a little later and found me flummoxed as before. With disappointment on his face, he left without a word. I know I had to come again.

After returning to my department it took a long time to find out what the problem was. A handbook published by Her Majesty’s Stationery Office for the Postal service for ham radio operators for the use in the army signal corps gave some explanations. About six months after the examination, a text book of Mathematics for Radiology Physics came available. That book contained the similar sum and the method of solving it.

After the practical examination, curiosity led me to find who the examiner was. The assistants in the laboratory who were invigilating and assisting us informed me that he was Prof. Joseph Rotbatt.

Prof. Rotbatt was a famous Atomic Physicist even before World War II. He was associated with Prof. Oppenheimer in U.S. during the war with the Atomic Research Project developing the Atomic Bomb. When he learnt that the Project was to develop an offensive weapon, he resigned and returned to U.K. Prof. Rotbatt remained faithful to the cause of peaceful pursuit of physics and for ailing humanity. When he was about ninety years old, he was awarded the Nobel Prize for Peace in the nineties of the last century, recalling his dedication to humanity.

I consider myself fortunate for the brief encounter which I had had with a noble soul dedicated to the cause of Physics, medicine and for World Peace.

Scientific predecessors of Roentgen whose contribution helped Roentgen develop x ray

Dr Subhas Basu , Ph .D.,Calcutta

Dedicated to those who sacrificed their lives while working on x- ray radiation

Joseph Priestley the British scientist took shelter in USA in 1793 who established a chart of biography .

It contains about two thousand distinguished names of persons.

He year marked the time frame between 1200 BC and 1800 AD.Otto Glasser along with Leopos

Rover applied Priestly's method to establish historical evaluation of scientific men ,whose work, led to discovery of Roentgen rays. The chart was first shown in the scientific exhibit at the 18th annual meeting of RSNA in Atlantic city in 1932.

The chart represents time ga between 1540 to 1895.Here following names with years is given who had immense contribution indirectly or directly in the discovery of x ray.

- **Gilbert found {1603} science of magnetism and electricity, Gilbert 1540-1603**
- **Terricelli constructs (1643) the barometer, produces "Torricellian vacuum". Torricelli (1608-1647)**
- **Guericke invents (1646) a vacuum pump and an electrostatic machine, Guericke(1602-1686)**
- **Bolly constructs (1659) an improved air pump, Boyle(1602-1686)**
- **Newton makes (1675) an electrostatic machine, Newton(1642-1727)**
- **Hauksbee observes (1713) glow discharges in vacuo, Hauksbee (1713)**
- **Grey distinguishes (1729) conductors from non-conductors, Grey (1696-1736)**
- **Du Fly discovers (1733) Vitreous and resinous electricity (1696-1736)**
- **Abbe Nollet experiments (1749) with his " electric egg" (1700-1770)**
- **Franklin defines (1750) positive and negative electricity (1706-1790)**
- **Watson transmits (1747) electricity over long conductors (1715-1787)**
- **Galvani discovers (1786) " animal electricity" (1737-1827)**
- **Volta constructs (1800) the first battery the " voltaic pipe" (1745-1836)**
- **Orsted discovers (1820) the link between electricity and magnetism (1771-1851)**
- **Ampere formulates (1820) mathematically the discovery of Orsted (1755-1836)**
- **Ohm formulates (1827) his law of electrical flow (1787-1854)**
- **Faraday and Henry both discover (1831) electromagnetic induction (1791-1867)**
- **Maxwell publishes his ' electro-magnetic equation' (1831-1879)**
- **Hertz proves (1887) the Maxwell equations by experimental method (1857-1894)**
- **Geissler develops (1860) Vacuum tubes containing various gases (1814-1879)**
- **Plucker observes (1850) fluorescence due to cathode rays (1801-1868)**
- **Hittorf observes (1869) the strange cathode rays (1824-1814)**
- **Crokkes independently observes (1879) radiant matter (1832-1819)**
- **Lenard produces (1892) highly improved cathode tubes.**
- **Rontgen discovers (1895) the 'X-ray' (1845-1823)**

ROENTGEN ERA BEGINS

Dr Subhas Basu wrote this article in the Souvenir of Bangalore IRIA, 1995

He was one of chief architects of IRIA, West Bengal branch.

Controversies haunted him throughout his life

He worked on X-ray examination of the mummy kept in the National Museum, Kolkata.

This work led to PhD – the research work was published in IJRI long ago.

He died in the year 2017 – unheard, unsung.



Dr. Ankur J. Shah
Consultant Radiologist
Sadbhav Imaging Centre,
Ahmedabad, Gujarat

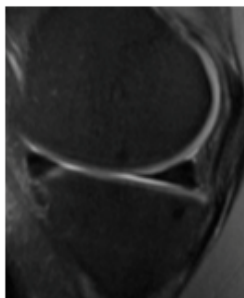
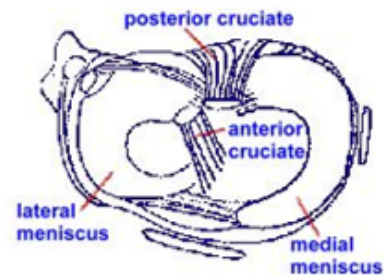
Joint Editor – IJRI
Secretary, Musculoskeletal Society of India.

MR imaging of menisci – MR Anatomy

Menisci are C-shaped fibrocartilaginous structures within the knee joint between femoral condyles and tibial plateau

It has three segments: Anterior horn, Body, Posterior horn

Menisci are seen as hypointense structures on all MR sequences. Their details are best evaluated on short TE sequences – PD being the preferred sequence for meniscus imaging

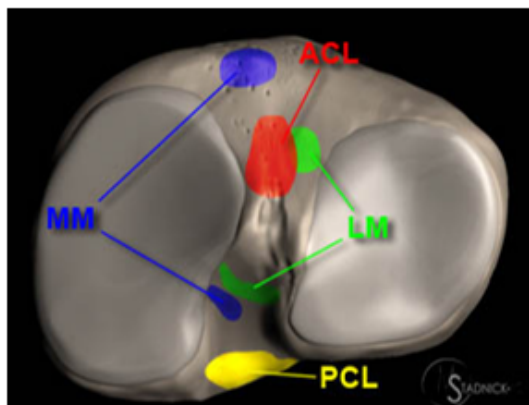
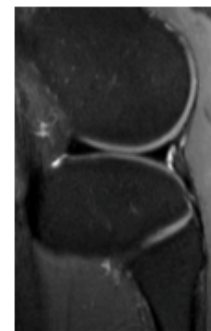


In medial meniscus, the posterior horn is larger than anterior horn.

Medial meniscus is firmly attached with the joint capsule.

In lateral meniscus, anterior horn and posterior horn are symmetrical in size.

Lateral meniscus is loosely attached with the joint capsule.



The medial meniscus is attached to the capsule of the knee peripherally and to the posterior tibial intercondylar fossa anterior to the PCL insertion site.

The anterior horn of the lateral meniscus attaches to the intercondylar fossa anterior to the lateral tibial tubercle and adjacent to the ACL. The posterior horn is

attached to the intercondylar fossa

Meniscus vascularity:



Red Red zone



Red White zone



White White zone

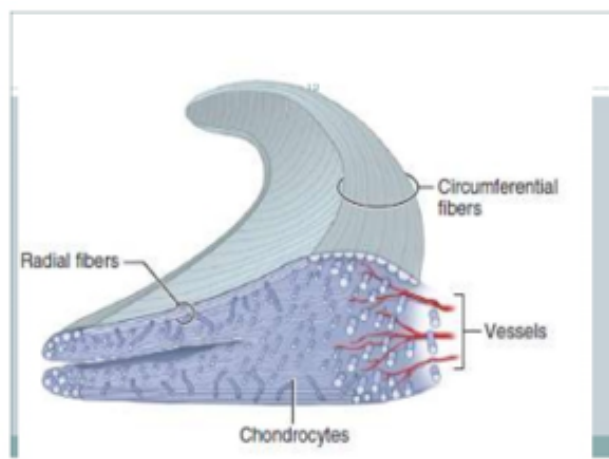
Both lateral and medial menisci are divided into zones depending on their blood supply

Outer 1/3rd of meniscus has reach blood supply. This part is known as Red Red zone. Meniscus injuries / tears in this region have good chances of healing

Inner meniscus has poor blood supply. This part is known as White White zone. Meniscus tears occurring at this region have poor chance of healing even if repaired / sutured.

The mid part of meniscus is known as Red White zone.

Structure of meniscus:



Meniscus has collagen fibers arranged in three patterns

Longitudinal
Radial
Random

Longitudinal fibers are situated from anterior to the posterior part of meniscus

Radial fibers are situated from medial to lateral part of meniscus

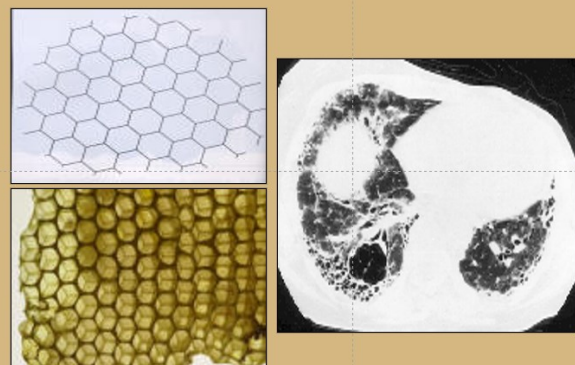
Disruption of these fibers needs significant force. Hence, meniscus tear pattern that requires break of any of these two fibers, is usually associated with significant trauma.

FOOD SIGNS IN RADIOLOGY - Dr. Viral Parekh, DMRD, DNB.**LICKED CANDY STICK APPEARANCE**

- Refers to tapering of the tips of the metacarpal bones, metatarsal bones, phalanges and clavicles.
- Associated with psoritic arthropathy, rheumatoid arthritis and leprosy.

LICKED CANDY STICK APPEARANCE**LOZENGE SIGN****LOZENGE SIGN****HONEYCOMB LUNG**

- Literally honeycomb is a beeswax structure of hexagonal cells for honey and eggs.
- Refers to a pattern of coarse reticular interstitial areas of increased opacity with intervening cystic spaces.
- End result of many ILD.
- Collagen disease, Idiopathic fibrosing alveolitis, pneumoconiosis, Sarcoidosis, eosinophilic granuloma.

HONEYCOMB LUNG

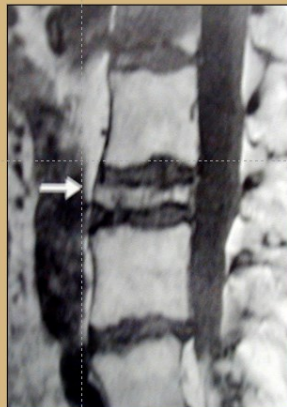
PANCAKE VERTEBRA

- Literally means thin, flat cake of fried flour & eggs
- Refers to flattening of a vertebral body.
- Also known as vertebra plana sign.
- Compression fracture of vertebral body which could be due to trauma or a pathological fracture due to Eosinophilic granuloma, metastases, myeloma, Haemangioma, steroid therapy, osteogenesis imperfecta.

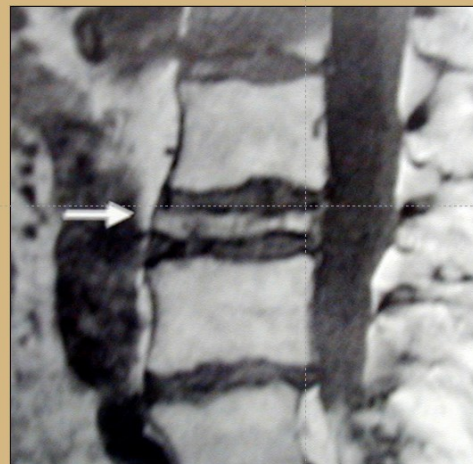
PANCAKE VERTEBRA



PANCAKE VERTEBRA



PANCAKE VERTEBRA



POPCORN CALCIFICATION

- Amorphous, cloudlike calcifications that resemble kernels of popcorn are known as popcorn calcification.
- The calcification that occurs in cartilaginous or chondroid lesions is usually of this type.
- Also seen in pulmonary hamartomas and in fibroadenomas of breast.

POPCORN CALCIFICATION





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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 October 2021

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

