

Calcutta Academy Of Radiology

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Hi! Namaskar friends, colleagues, juniors & seniors,

It is a pleasure to see all of you once again without any glass between us, Slowly but steadily life is limping back to normal with the recently concluded successful 74th Annual Conference of IRIA in Bengaluru held from 24th to 27th March, 2022 after a two long years without any physical conference. The theme of the conference : "Touch to Build trust : Innovative Imaging" set the tone of the national radiology & imaging conference. Many colleagues have passed away and many new faces have surfaced. It was well organized with good scientific programmes and time to interact with one another. The best part of the conference was an Art Gallery with works presented by our fellow Radiologists.

The trade exhibition also showed new innovations in the field of Ultrasound, CT & MRI. Even digital X-ray machines came up with innovations. One of the star attractions was the Photon CT by Siemens. The world's first photon counting CT is a quantum leap in CT technology and is about to redefine what is possible in cardiac imaging. The conference was a breath of fresh air from the numerous Webinars that have been taking place in the last couple of years.

However, Calcutta Academy of Radiology continues this strife to keep up with the changing times with its regular publications of its newsletter, WhatsApp groups, YouTube & Telegram mediums of communications.

The issue would not have possible without the help of Dr. Bhavin Jankharia, Dr. Rajesh Botchu & Dr. Anup Sadhu. We sincerely thank all of them on behalf of the team of CAR.

The next issue of our newsletter will be published in June 2022, till then wish all of you a happy festive time with the Bengali New Year & Easter celebrations.



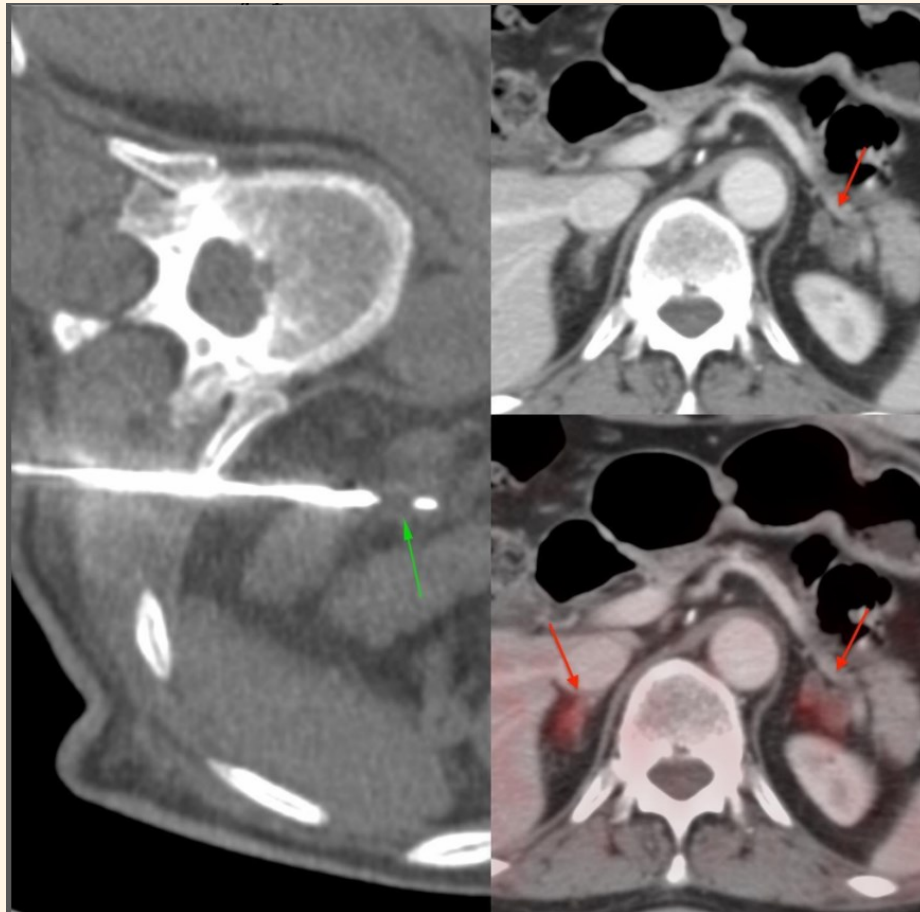
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Dr. Bhavin Jankharia needs no introduction to the Radiology fraternity. As you all know he is a renowned Radiologist and academician and has contributed immensely in propagating Radiology education. Presently, he is a Consultant Radiologist at Picture 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 - Adrenal Gland Biopsy in the Decubitus Position - Tuberculosis

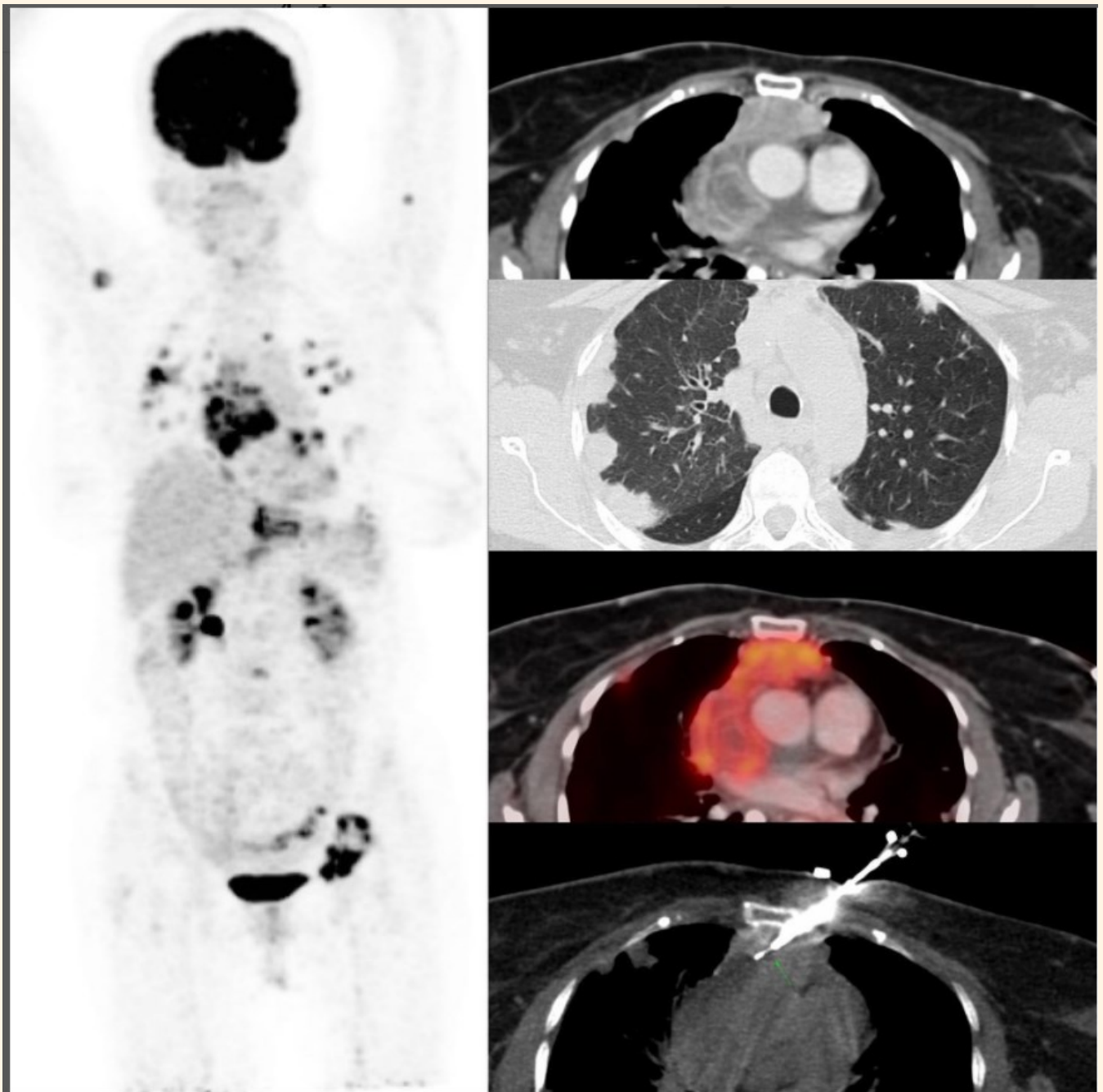


A 76-years old man came with Addison's disease. CT and PET/CT showed bilateral necrotic adrenal nodules, left more than right, the largest measuring 11 x 9 mm in size on the left, both showing mild up-take.

Again, because of the pleural and lung coming in the way in the prone position, the left lateral decubitus position was chosen. The first time, his breathing could not be controlled and the procedure had to be abandoned. It was then re-scheduled with sedation, after prepping with IV steroids and it was then easy to place the 20G coaxial biopsy gun into the adrenal nodule.

The diagnosis was PCR and histopath positive tuberculosis.

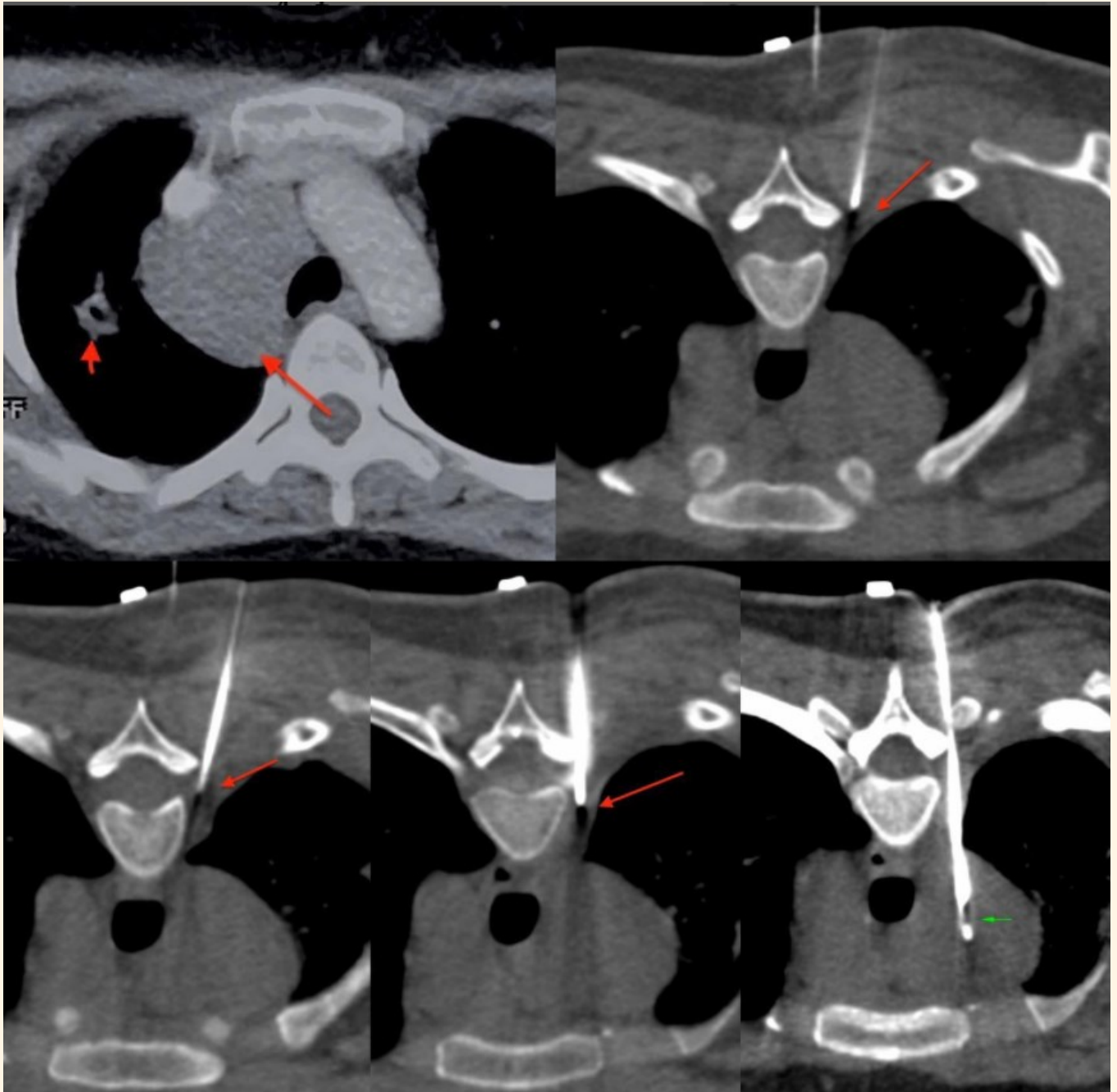
Case II - Thymic Tumor - Recurrent Tumor - Parasternal Approach



This is a 67-years old lady who was operated for a sarcomatoid thymic carcinoma. The repeat PET/CT shows recurrence of disease, with spread to the lungs, pleura and the liver.

A biopsy was needed to reconfirm recurrence. In her case, an oblique left para-sternal approach using an 18G coaxial biopsy gun allowed a safe biopsy, with the needle tip directed away from the vessels. She had recurrence of disease.

Case III - Salinoma - Hydrodissection for Paratracheal Node



This 30-years old lady presented with fever and a large right paratracheal node. The working diagnosis was lymphoma, given its homogeneous appearance and size. While the nodal mass is easy to biopsy, I did not want to go through the lung.

In the prone position, I first inserted a 20G spinal needle obliquely into the space between the pleura and the vertebral body and then injected a combination of saline and local anesthetic. There was adequate separation. Then using an 18G coaxial biopsy gun, I went in straight and again injected a little more saline to complete the separation and managed to get into the node using an extra pleural approach.

The diagnosis was non-caseating granulomatous disease and in view of the lung lesion, she was treated for tuberculosis.

Comprehensive Imaging Solutions

Rx

AUMIXOLL

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



Rx

AUMIWIZ

Gadopentetate Dimeglumine Injection 10/20 ml USP



Rx

AUMIGIT

Diatrizoate Sodium Solution 30ml/100ml USP



Rx

AUMIVIST

Iopamidol Injection 300/370 - 90ml / 50 ml USP



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Presacral Myelolipomas – A Spectrum of Cases

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Myelolipomas consist of hematopoietic cells and fat (1). Myelolipomas are benign tumors that are not expected to be seen outside the adrenal glands. However, extra-adrenal myelolipomas are present in areas such as the retroperitoneum, perirenal space, and the thorax. In retroperitoneum, the presacral region is where these myelolipomas are most likely to be (2). They usually present between the 6th to 7th decade and are slightly more common in females (2).

We identified four cases of presacral myelolipomas over the last ten years in our local hospital with varying sizes. All four of our patients were females who were asymptomatic, and the lesions were discovered incidentally on magnetic resonance imaging (MRI) scans performed for other complaints for example back pain. One of the patients underwent a computed tomography (CT) scan.

As described classically in literature the lesions in our case series contained macroscopic fat with areas of cellular component and myeloid tissue. On MRI they appeared heterogeneous with areas of high T1W signal, which demonstrated drop out on fat suppression. There were also areas of high T1W signal in keeping with myeloid tissue. On CT intralésional macroscopic fat was visible as low attenuation foci interspersed between areas of soft tissue attenuation.

It is important to consider the following as differential diagnosis for extra adrenal presacral myelolipomas.

- **Chordoma:** Present between 4th to 7th decades but twice more common in men. They are usually destructive lytic lesions and can contain calcifications with low or intermediate signal T1W areas, which do not demonstrate signal drop out on fat suppression.
- **Chondrosarcoma:** Destructive invasive lesions which extend into surrounding tissues. These can contain mineralisation and demonstrate intense contrast enhancement.
- **Liposarcoma:** Contains fat but is more heterogeneous with mild post contrast enhancement (3).
- **Teratomas:** Demonstrate varying characteristics based on the teratoma composition (5)

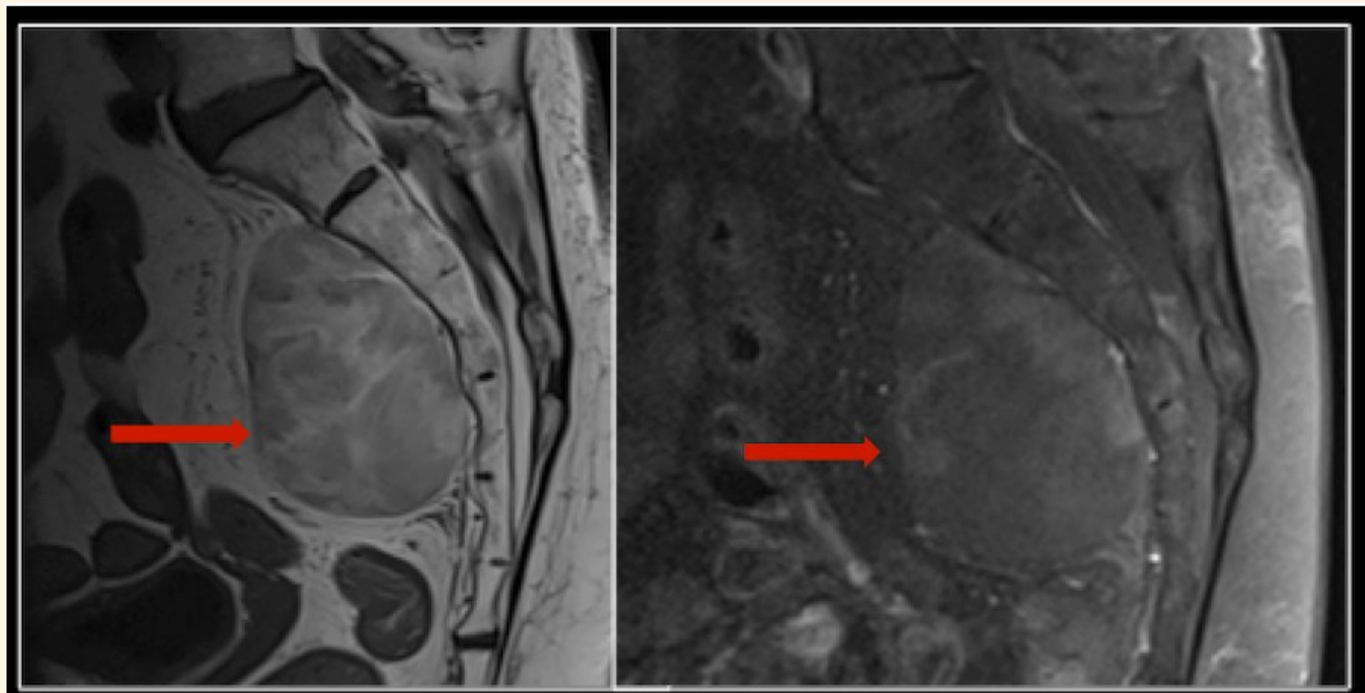


Figure 1

Sagittal T1 (a) and STIR (b) showing presacral myelolipoma (arrow)

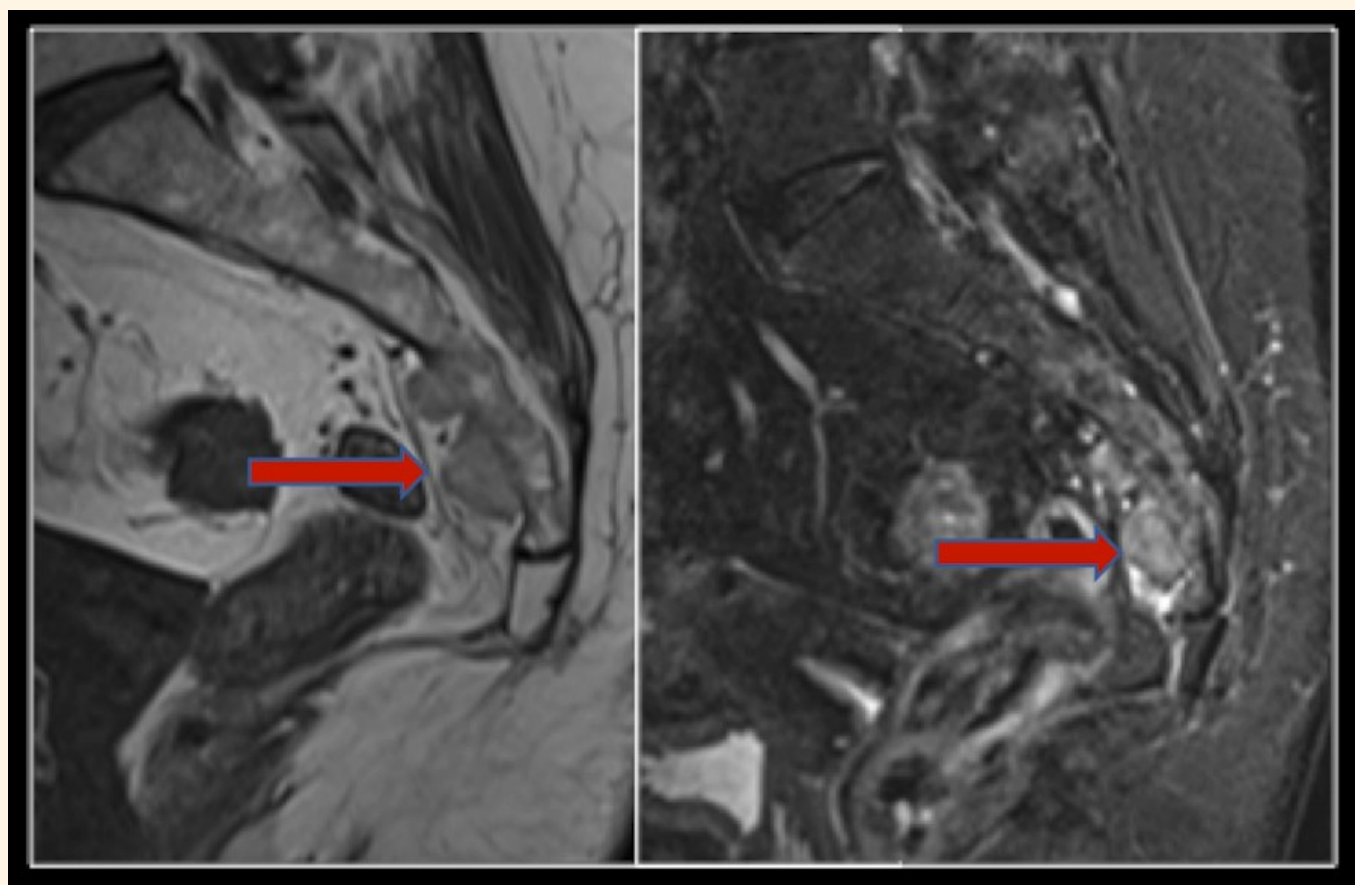


Figure 2

Sagittal T1 (a) and STIR (b) showing presacral myelolipoma (arrow)

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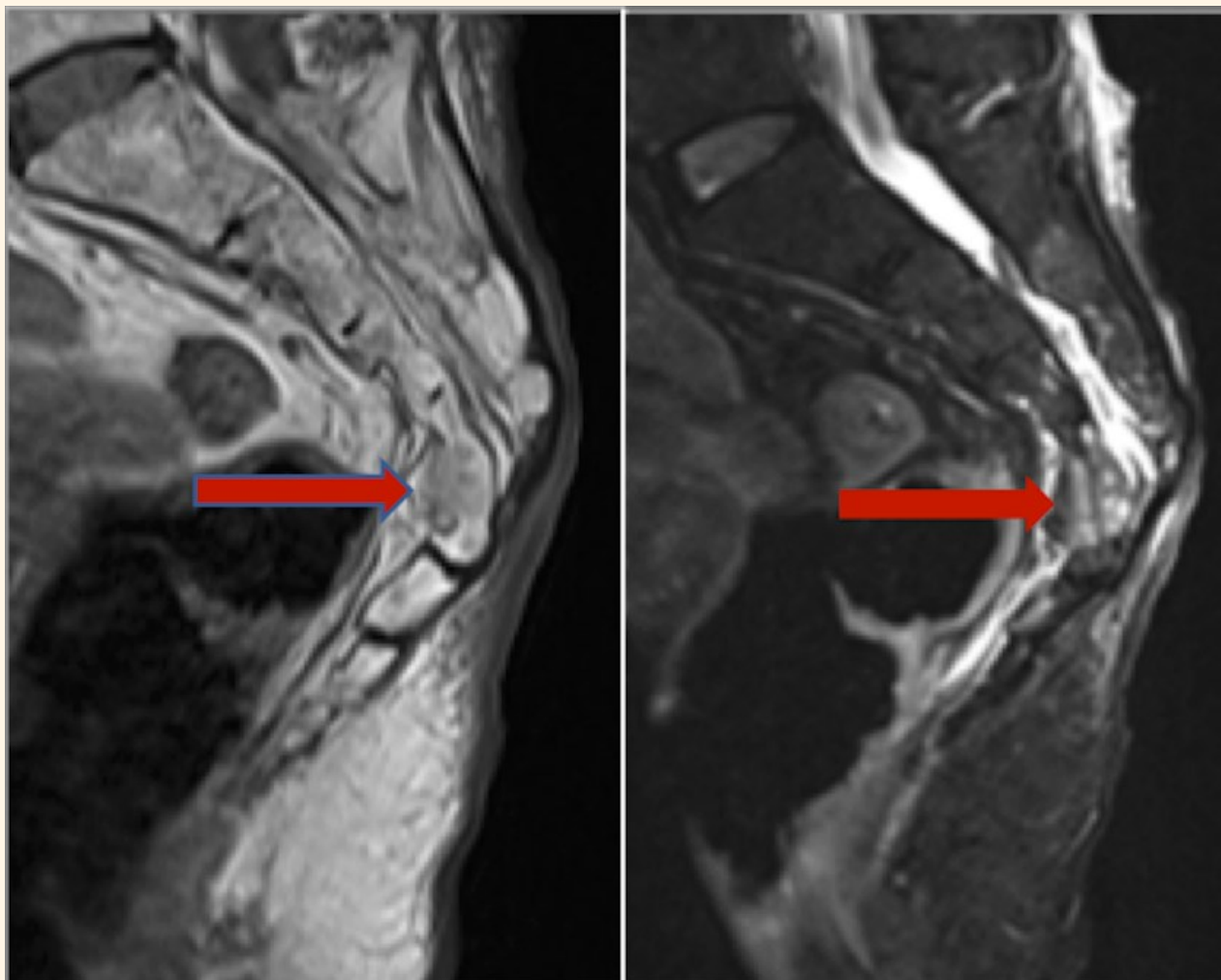
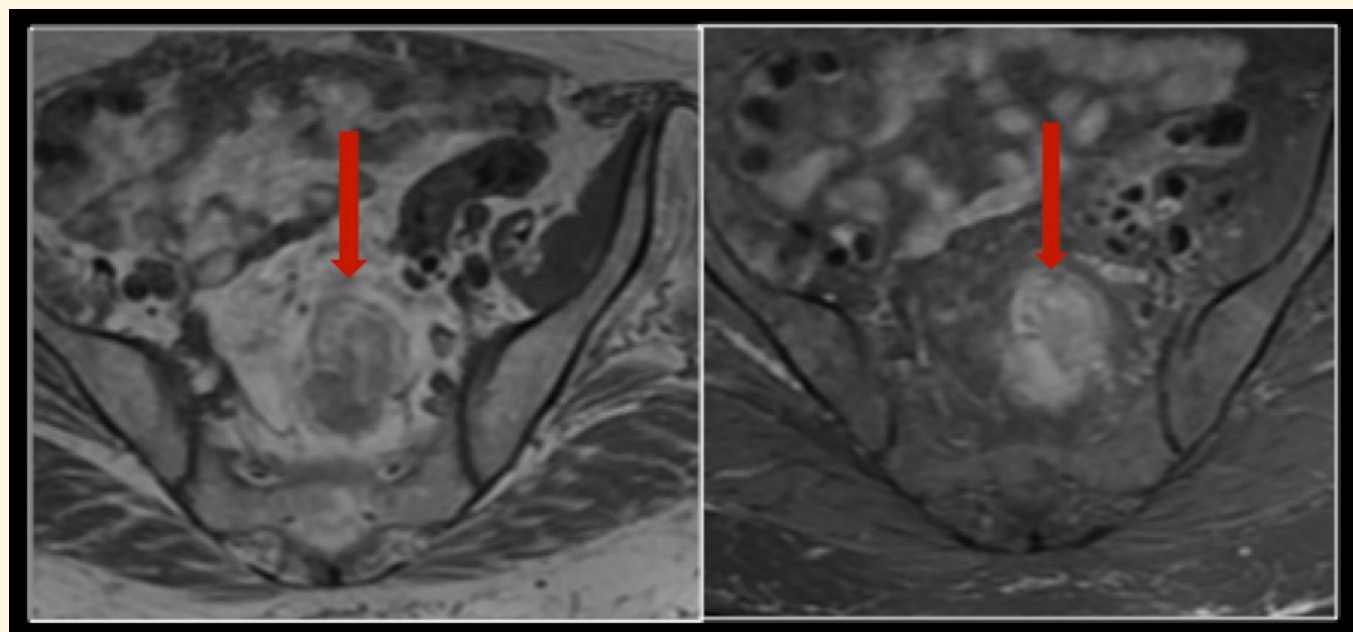


Figure 3

Sagittal T1 Figure 4



Axial T1 (a) and STIR (b) showing presacral myelolipoma (arrow)

(a) and STIR (b) showing presacral myelolipoma (arrow)

Presacral Myelolipomas – A Spectrum of Cases

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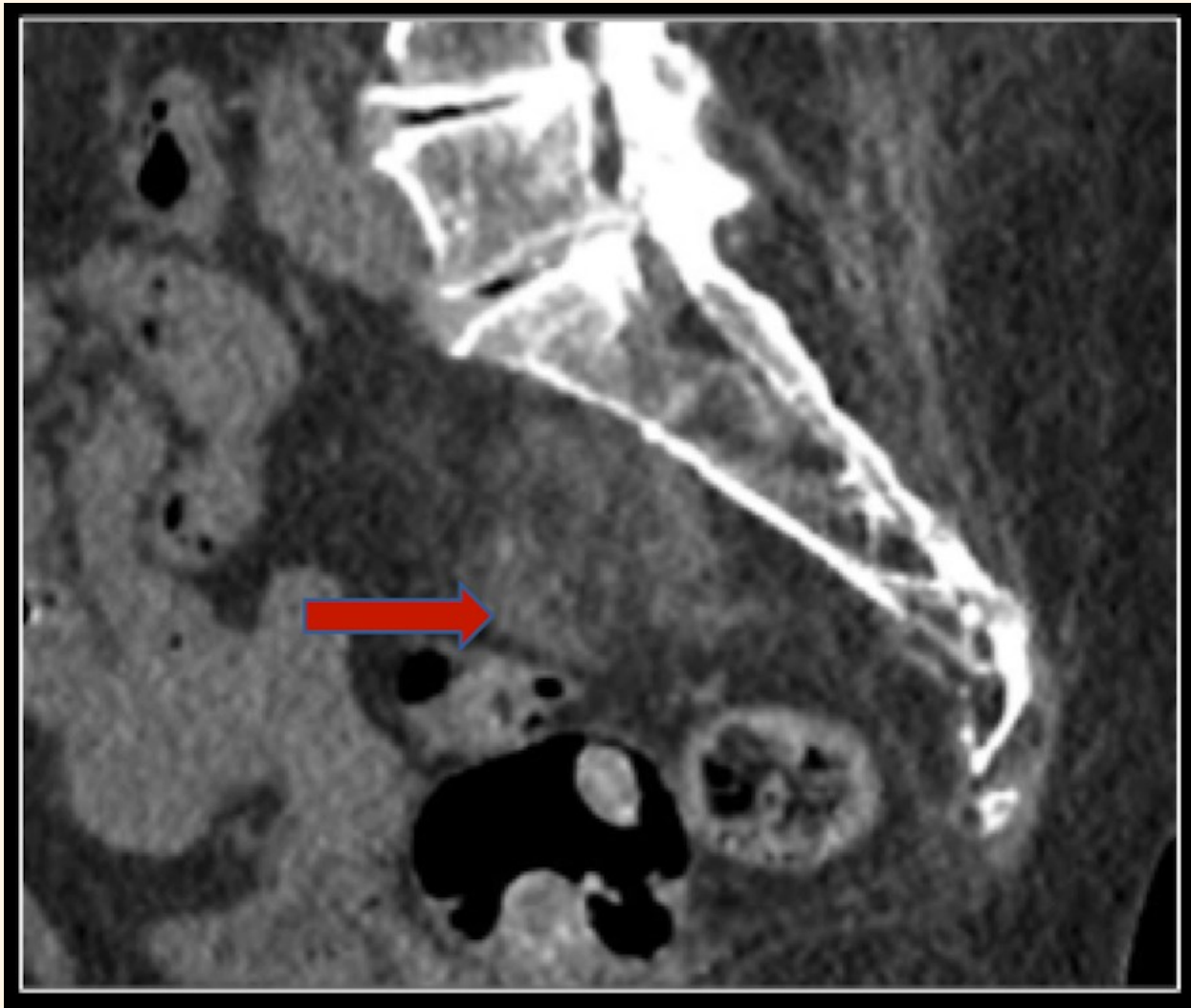


Figure 5

Sagittal CT showing presacral myelolipoma (arrow)

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**From the pages of History....
Early Radiological Organizations**

In Radiology ,soon after discovery of X ray by W. C .Roentgen ,organizations and periodicals of high quality were established.

American Roentgen Ray society (ARSS)

The American Roentgen Ray Society (ARRS) is the first and oldest radiology society in the United States. It was founded in 1900, in the early days of X-ray and radiation study.

Headquartered in Leesburg, Virginia, the society publishes a monthly, peer-reviewed journal: American Journal of Roentgenology (previously American Journal of Radiology), providing a forum for advances in radiology and related fields. It provides scholarships, and presents awards.

The quarterly ARRS In Practice magazine keeps members informed of annual meeting plans and general Society information.

Its educational programs include seminars and a program of continuing education for radiologic technologists.

Its 9th meeting, in 1908, was held in New York City. There, it announced that there was "no excuse whatever" for anyone being injured during medical X-rays, which "could be taken in a fraction of a second".

Heber Roberts in an editorial in the first volume ,offered reasons why he thought that the physicians were not readily adopting the 'New Science'.

He said "The conduct of this journal shall not be arrogant, defiant or bigoted but it will have the courage of conviction to press forward the truth as we understand the truth.....

There will be no personal venom ,as we hold no animus against any man"

The American Roentgen Ray Society (ARRS), was by the mid-1910s, seen very much as an organization of the Eastern portion of the United States; the vast majority of its members were from States in the East of the country, and almost all its meetings were held there. It was difficult for members from the Western portion of the Union to travel to meetings in the East, for both financial reasons and the necessary lengthy absence from their medical practices. The ARRS had made efforts to mitigate this bias, for example, by organizing "Western Section" meetings, however, it was unsuccessful

In 1915, Edwin C Ernst, a radiologist from St Louis, following his return home after a meeting of the American Roentgen Ray Society, decided that the time had come to establish a separate radiological association for the Western and central US (i.e. Midwest). An inaugural organizational meeting was held at the Sherman Hotel in Chicago on 15-16th December 1915. This new membership organization was called the Western Roentgen Society.

Despite being established as a society for the West of the country, by 1919 it boasted of 472 members from 38 states, and was closer to being a nationwide organization than the older and - more prestigious - American Roentgen Ray Society. Thus in 1920, the Western Roentgen Society became the Radiological Society of North America (RSNA).

The Radiological Society of North America (RSNA)

is an international society of radiologists, medical physicists and other medical professionals with more than 54,000 members across the globe. Based in Oak Brook, Illinois, RSNA was established in 1915.

RSNA hosts one of the world's largest annual medical meetings, a week-long event which starts the last Sunday of November in Chicago. The society also publishes two peer-reviewed journals: Radiology, offering radiology research and reviews, and RadioGraphics, dedicated to continuing education in radiology.

The Society also develops and offers informatics-based software solutions in support of a universal electronic health record, sponsors research to advance quantitative imaging biomarkers, and conducts outreach to enhance education in developing nations. Through its Research & Education Foundation, RSNA provides millions of dollars in funding to investigators. The presidency of the RSNA is held as a one-year term.

American College of Radiology

In 1923, a bill was passed by politicians in California allowing lay individuals to set-up and run x-ray centers. This development greatly alarmed Albert Soiland (1873-1946), a pioneering radiologist working in Los Angeles. He felt that the time had come for radiology to be recognized as a bona fide medical specialty in the United States. Thus on the morning of June 26th 1923, he advanced a resolution at the House of Delegates of the American Medical Association (AMA) for radiology to be officially endorsed as a specialty and for a Section on Radiology to be established. The AMA duly promulgated radiology as a specialty, although it took until 1924 for the Section to be set-up.

On the evening of the same day, Soiland had dinner with twenty leading radiology colleagues. He proposed that a College of Radiology be founded, something with which his radiology dinner companions concurred. The American College of Radiology was incorporated in 1924.

THE BRITISH INSTITUTE OF RADIOLOGY

The British Institute of Radiology (BIR) is the oldest radiological Society in the world. The origin of the BIR can be traced back to a first meeting held on 2nd April 1897 to form "The X-ray Society". The society can be traced back to two separate institutes, "The X-Ray Society" in April, 1897, and "The Röntgen Society"; both were formed in the wake of the discovery of X-rays by Wilhelm Röntgen in 1895. The latter was founded by Dr John Macintyre in 1897. He had been the first person in Britain to use X-rays, using equipment created by William Thomson, Lord Kelvin at Glasgow Royal Infirmary on 5 February 1896.

The formalisation of the BIR occurred in 1927 upon the merger of the two societies. The BIR became a registered charity in 1963.

Among other publications, the BIR publishes several journals including the British Journal of Radiology (BJR), and Dentomaxillofacial Radiology (the official journal of the International Association of Dentomaxillofacial Radiology, IADMFR). The Archives of Clinical Skiagraphy, first published in 1896, ultimately became the BJR in 1928.

1922 – Home of BIR acquired –32 Welbeck Street London ,UK
1982-New home of BIR –36 Portland place .London



HEBER ROBERTS 1852-1922

{Dr. Heber Roberts, a founding member and the first President of the Roentgen Society of the United States (later to become the American Roentgen Ray Society)}

The Indian Radiological Association

The Indian Radiological Association took its birth in 1931 in Calcutta with late Dr. Ajit Mohan Bose as founder President and Dr. Subodh Mitra as founder Secretary. The first meeting was held on 21st April, 1931 in Calcutta and Capt. M. Mukherjee, Dr. I.B. Ghosh and Dr. Moitra attended the meeting.

In March 1937 the Indian Radiologist Association was registered under Act XXI of 1860, with the Registrar of Joint Stock Companies, Bengal Registration No. 6644 (1936-37) with a total membership strength of 24.

The first Annual Congress of Radiology was held in 1946 at Madras under the Presidentship of Dr. M.D.Joshi and Secretary Dr. P. Rama Rao. At the time there were 130 members of the association.

The change in the name of Association: it was felt rightly that there has been tremendous change in the modalities of imaging all over the world and our Association must effectively reflect by naming a name which will speak for itself. Therefore, the Indian Radiological Association became the Indian Radiological and Imaging Association. The Journal and the College were also renamed accordingly IJRI and ICRI.



Subodh Mitra

Sources:

The illustrated History of Radiology by Ronald Eisenberg
Wikipedia
IRIA website

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

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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
26	CAR CME - Heart Anatomy

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.





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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, 2022

We will be bringing out such Newsletters with a frequency of one issue every two months. So, next issue will be published in June, 2022.

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, 2022. 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.

