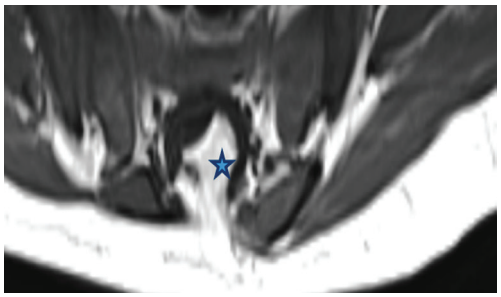
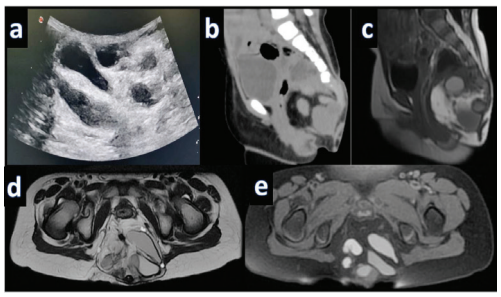
Issue 16 Apr 2023

IRIA Telangana e-Newsletter





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Indian Radiological & Imaging Association

Telangana State Chapter 2023

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From the President's Desk

Dear friends, senior and junior colleague members of TS IRIA chapter,

I am happy to share this edition of IRIA newsletter.

The news letter provides information regarding the Academic activities of the Radiology Association at various levels and highlights the Academic and personal achievements of the members.

It provides the details of the monthly meetings, special programmes of the IRIA TS chapter in a colorful presentation.

I request the members to contribute interesting cases and provide personal achievements to the editorial team.

I thank and congratulate Dr. Jagan Mohan Reddy and all other members of the editorial board for their hard work and coordination to bring the news letters.

Wishing you all the best.

Dr. Randhi Venkata Ramana
President TS Chapter IRIA

From the General Secretary Desk

Dear Members of IRIA Telangana State Chapter,

I hope this message finds you all in good health and high spirits. As the General Secretary of our esteemed organization, I am writing to inform you about some of the recent activities and upcoming events that we have planned.

We recently conducted a useful webinar on the RECIST criteria for the benefit of junior radiologists. Ultrasound Liver Elastography workshop was conducted along with National IRIA at Indoamerican cancer hospital and many delegates participated in this program.I am proud to say that both were well-received and attended by many of our members. We are committed to organizing such educational events for our members to keep them updated with the latest developments in our field.

We also conducted Women's Day celebrations to recognize and felicitate our distinguished senior women radiologists. It was a wonderful opportunity to appreciate the contributions of our female members to the field of radiology.

Moving on to some of our upcoming events, we will be organizing the KARE Resident Education Program, which provides an excellent opportunity for our post-graduate students to learn from senior national faculty. We will be organizing the first-ever VSV Rammohan Memorial Oration during the KARE program, and the KPR gold medal will be presented to the topper of the quiz during the program.

Additionally, we will be organizing a workshop on Musculoskeletal Ultrasound and Interventions. The workshop will feature exclusive cadaveric interventions and we have invited national and international speakers to share their expertise on the subject, making it a comprehensive and enriching learning opportunity.

Lastly, I would like to take this opportunity to congratulate Dr. K. Prabakar Reddy for receiving the lifetime achievement award during the recently held national IRIA conference at Amritsar. This is a well-deserved honor and a testament to Dr. Reddy's contributions to the field of radiology.

In conclusion, I encourage all members of IRIA Telangana State Chapter to take advantage of these exciting upcoming academic activities. We believe that these events will provide valuable learning experiences and help us continue to promote excellence in the field of radiology.

Thank you.

Sincerely,
Dr. Krishna Mohan Pottala
General Secretary, IRIA Telangana State Chapter.

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AROUND-THE-CLOCK RADIOLOGICAL COVERAGE : CHALLENGES AND OPPORTUNITIES

In the world of medicine, every minute counts. Accurate and timely diagnosis is essential in providing the best possible care to patients, and in many cases, this means relying on imaging services. Radiology services play a crucial role in diagnosing and treating various medical conditions. However, the traditional model of radiology services often meant long wait times and delayed diagnoses.

The solution to this problem lies in around-the-clock radiology services. The concept of 24/7 radiology services is not new, but it is gaining attraction due to the increasing demand for faster and more accurate diagnoses. Around-the-clock radiology services can help reduce wait times and improve patient outcomes.

One of the most significant benefits of around-the-clock radiology services is the ability to provide immediate diagnosis and treatment. Patients no longer have to wait for hours or even days to receive their reports. With around-the-clock radiology services, doctors and medical staff can access the results of imaging scans in real-time, allowing for faster diagnosis and treatment.

For eg.brain infarct is time dependent requiring early diagnosis and intervention to minimize its undesired outcome.

Massive hemoptysis can be manged by emergency intervention radiology by bronchial artery embolization and reduce mortality

Another benefit of around-the-clock radiology services is the increased capacity to handle emergencies/disasters. In many cases, these require immediate diagnosis and treatment. With around-the-clock radiology services, medical staff can quickly diagnose and treat patients, potentially saving lives

Additionally, around-the-clock radiology services can help reduce costs by decreasing the number of unnecessary tests and procedures. With immediate access to imaging results, doctors can make more informed decisions about which tests and treatments are necessary, reducing the likelihood of performing unnecessary tests.

Around-the-clock radiology has the potential to revolutionize the way radiology services are provided even to remote villages. Immediate access to imaging results can lead to faster and more accurate diagnoses, potentially saving lives and reducing costs. As the demand for speed and more accurate diagnoses continues to increase, around-the-clock radiology services will likely become a standard practice in the medical field.

AI in radiology will go a long way in providing 24/7 services due to its ability to process and analyze large amounts of data quickly and accurately. AI helps to identify & prioritize urgent cases, identifying and interpreting subtle imaging findings that may be difficult to detect with the human eye alone, providing predictive analytics based on the

patient's medical history, imaging results, and other relevant data. This information can help radiologists determine the most appropriate course of action, leading to better patient outcomes and reduced healthcare costs.

Around-the-clock radiology services can have a significant impact on the health and well-being of radiologists, who are responsible for interpreting and reporting on diagnostic images. 24/7 coverage can place significant demands on radiologists, leading to a range of physical and mental health issues.

One of the primary health impacts of around-the-clock radiology services is fatigue. Radiologists who are required to work long hours, particularly during overnight shifts, may experience sleep disturbances and chronic fatigue, which can have a negative impact on their overall health and well-being. Prolonged periods of fatigue can lead to a range of physical health issues, including headaches, musculoskeletal pain, and increased susceptibility to illness.

In addition to physical health issues, radiologists may also experience mental health issues as a result of working in an around-the-clock radiology service. The high volume of cases and pressure to provide timely and accurate diagnoses can lead to stress, anxiety, and burnout. Radiologists may also experience a sense of isolation or disconnection from their colleagues, particularly if they are working alone during overnight shifts.

To mitigate these health impacts, it is important for healthcare organizations to implement strategies to support the well-being of radiologists working in around-the-clock radiology services. This may include providing opportunities / schedules for rest and recovery, implementing systems to manage workload and reduce stress, and fostering a culture of support and collaboration among radiologists and other healthcare professionals.

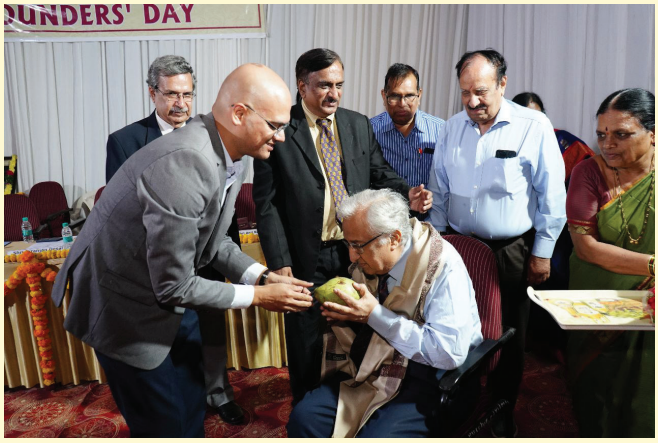
In conclusion, around-the-clock radiology services can have significant health impacts on radiologists, particularly in terms of fatigue and mental health issues. It is important for healthcare organizations to prioritize the well-being of radiologists and implement strategies to mitigate these risks. By doing so, they can ensure that radiologists are able to provide high-quality diagnostic services while maintaining their own health and well-being.

ACHIEVEMENTS

Hearty congratulations to our beloved Dr. K Prabhakar Reddy who was conferred with Life time achievement award at National conference of IRIA 2023 Amritsar.

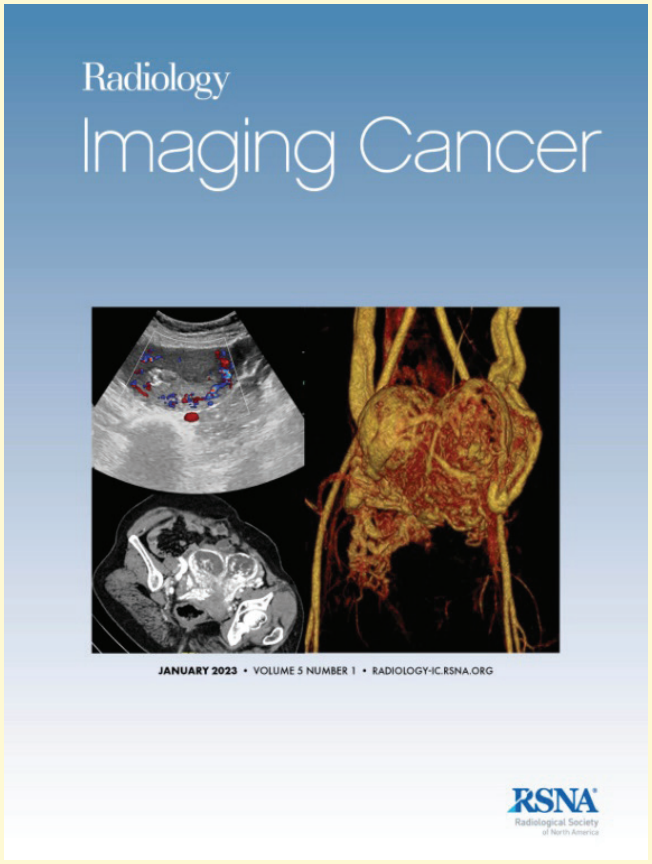
Congratulations to our leaders of Telangana in IRIA! At 75th Annual Conference of at Amritsar. Mementos were presented to Dr. RAJESH ENGELA, VICE PRESIDENT IRIA 2022, and Dr. SIKANDAR SHAIKH, SECRETARY ICRI.

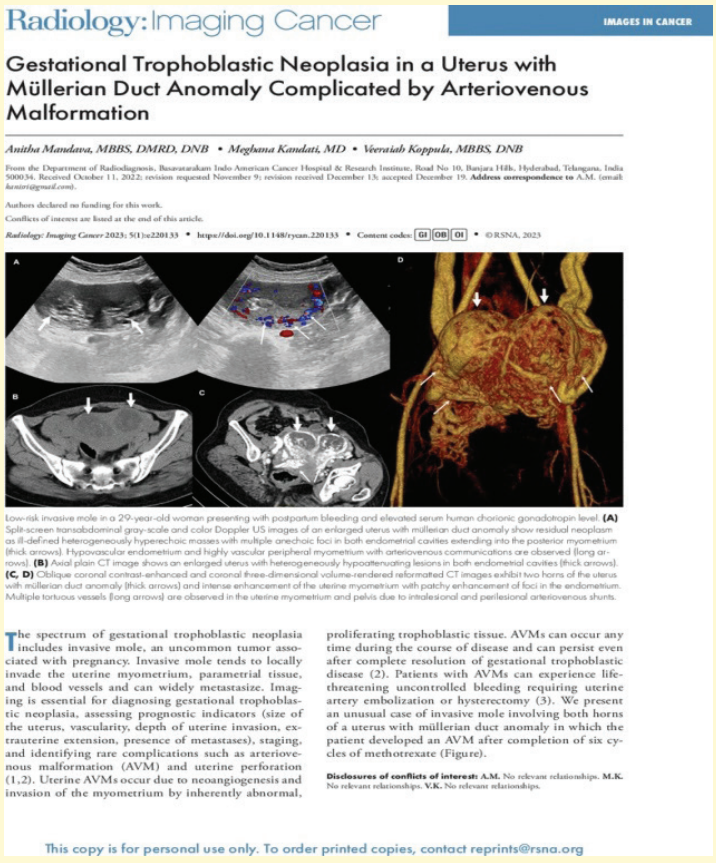
Dr. RS Moorthy was awarded Ananta Animuthyam Award by Sahithi Gagan mahal Trust - Penugonda Ananthapur Congratulations sir!



On the occassion of 115th Founder's Day Celebrations2022 of Vivek Vardhini Education Society on 30th January 2023 , Society Confer LIFE TIME ACHIEVEMENT AWARD To Dr.Anand Abkari. AWARDED and Presented by Chief Guest Shri Niranjan Desai in Presence of President -Shri Sadashiv Sawrikar, Vice President- Shri Govind Naik, Vice President- Shri Anand Kulkarni, Secretary- Dr. Mrs. Geeta Kate, Treasurer- Shri Prakash Tuljapurkar, Joint Secretary Anil Rajeshwarkar

Dr.S.Venkataramana Appointed as Advisor (Clinical) to the Research and Innovation Circle Hyderabad (RICH), part of T HUB, Largest Innovation campus in the world, a Govt of Telangana initiative.





Radiology: Imaging Cancer — IMAGES IN CANCER

Gestational Trophoblastic Neoplasia in a Uterus with Müllerian Duct Anomaly Complicated by Arteriovenous Malformation

Anitha Mandava, MBBS, DMRD, DNB • Meghana Kandati, MD • Veeraiah Koppula, MBBS, DNB

From the Department of Radiodiagnosis, Basavatarakam Indo American Cancer Hospital & Research Institute, Road No 10, Banjara Hills, Hyderabad, Telangana, India 500034. Received October 11, 2022; revision requested November 9; revision received December 13; accepted December 19. **Address correspondence to** A.M. (email: *hanzir@gmail.com*).

Authors declared no funding for this work.

Conflicts of interest are listed at the end of this article.

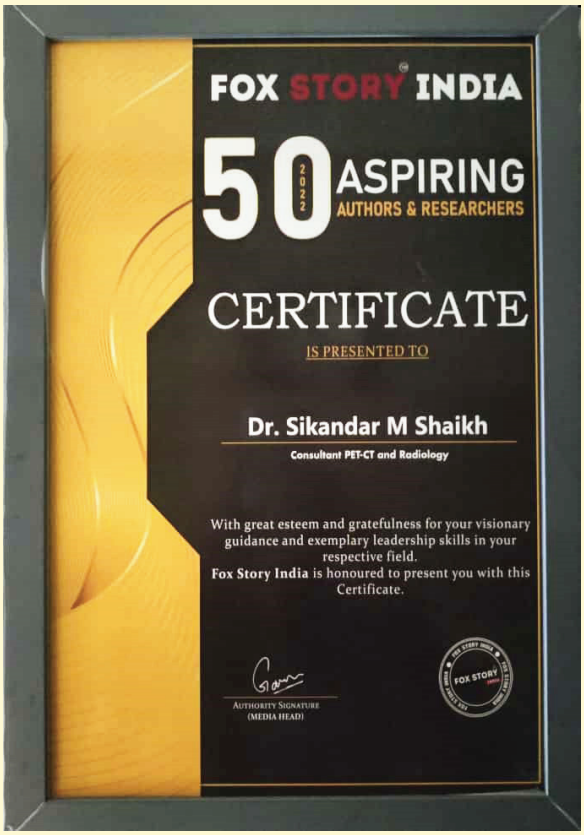
Radiology: Imaging Cancer 2023; 5(1):e220133 • https://doi.org/10.1148/rycan.220133 • Content codes: GI OB OI • ©RSNA, 2023

Low-risk invasive mole in a 29-year-old woman presenting with postpartum bleeding and elevated serum human chorionic gonadotropin level. **(A)** Split-screen transabdominal gray-scale and color Doppler US images of an enlarged uterus with müllerian duct anomaly show residual neoplasm as ill-defined heterogeneously hyperechoic masses with multiple anechoic foci in both endometrial cavities extending into the posterior myometrium (thick arrows). Hypovascular endometrium and highly vascular peripheral myometrium with arteriovenous communications are observed (long arrows). **(B)** Axial plain CT image shows an enlarged uterus with heterogeneously hypoattenuating lesions in both endometrial cavities (thick arrows). **(C, D)** Oblique coronal contrast-enhanced and coronal three-dimensional volume-rendered reformatted CT images exhibit two horns of the uterus with müllerian duct anomaly (thick arrows) and intense enhancement of the uterine myometrium with patchy enhancement of foci in the endometrium. Multiple tortuous vessels (long arrows) are observed in the uterine myometrium and pelvis due to intralesional and perilesional arteriovenous shunts.

The spectrum of gestational trophoblastic neoplasia includes invasive mole, an uncommon tumor associated with pregnancy. Invasive mole tends to locally invade the uterine myometrium, parametrial tissue, and blood vessels and can widely metastasize. Imaging is essential for diagnosing gestational trophoblastic neoplasia, assessing prognostic indicators (size of the uterus, vascularity, depth of uterine invasion, extrauterine extension, presence of metastases), staging, and identifying rare complications such as arteriovenous malformation (AVM) and uterine perforation (1,2). Uterine AVMs occur due to neoangiogenesis and invasion of the myometrium by inherently abnormal, proliferating trophoblastic tissue. AVMs can occur any time during the course of disease and can persist even after complete resolution of gestational trophoblastic disease (2). Patients with AVMs can experience life-threatening uncontrolled bleeding requiring uterine artery embolization or hysterectomy (3). We present an unusual case of invasive mole involving both horns of a uterus with müllerian duct anomaly in which the patient developed an AVM after completion of six cycles of methotrexate (Figure).

Disclosures of conflicts of interest: A.M. No relevant relationships. **M.K.** No relevant relationships. **V.K.** No relevant relationships.

"Heartfelt congratulations to Dr Anitha Mandava, Dr Meghana and Dr Veeraiah Koppula for their outstanding achievement of having their work published Radiology Journal with their article images displayed in cover page. Your dedication, hard work and passion for the field have truly paid off. You have set an inspiring example for others to follow and have made a significant contribution to the medical community. We are proud of you and wish you continued success in your future endeavors. Keep shining!"



Dr.Sikandar M Shaik has been named as one of the Top 50 Aspiring AUTHORS and RESEARCHERS by Fox Story India and Hindustan Times media for his book ADVANCES IN IMAGING -STEP TOWARDS PRECISION MEDICINE by Springer publications Singapore.

Dr. P Krishna Mohan Invited faculty at state Orthopaedic annual conference, at HICC Novotel hotel today and participated in bone tumour panel discussion

Dr Nihaal Reddy, invited faculty to American Society of Pediatric Neuroradiology conference; Visiting Consultant toTexas Children's Hospital, USA; Elected as Secretary General of the Society of Pediatric Neuroimaging; Chief Organizer for Paediatric Neuroradiology program at the annual Indian Society of Neuroradiology meeting.

Dr Nihaal Reddy, invited faculty to Association of Child Neurology conference; Association of Paediatric Neurology conference; Neurological society of India; Indian Society of Pediatric Radiology Oncoimaging conference.

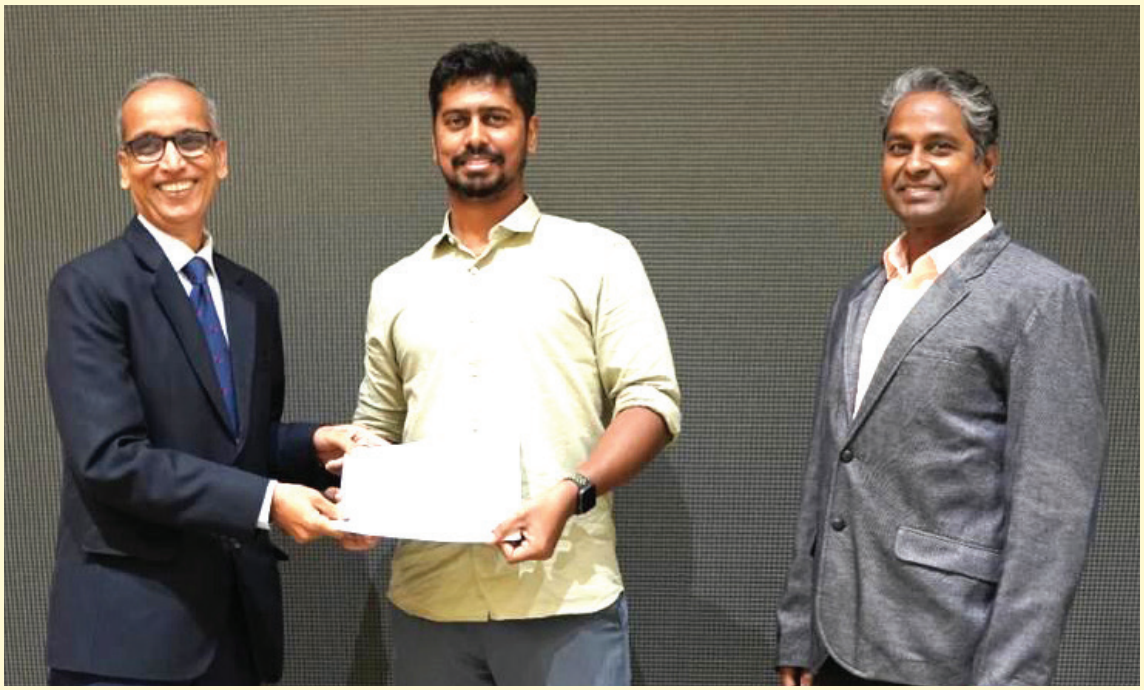
Dr Ankith Balani invited faculty in 11th Annual Conference of the Neurological Surgeons Society of India

QUIZ WINNERS IN MONTHLY MEETING

1st Prize

Dr. Sravya
3rd Year PG
Osmania Medical College

2nd Prize



Dr. Naveen Kumar
3rd Year PG
NIMS

3rd Prize

Dr. Sharath Chandra
3rd Year PG
NIMS

ARTICLES

Dr. L GEETHA RANJANI
Consultant Radiologist
Yashoda Hosital

IMAGING SPECTRUM OF SPINAL DYSRAPHISM ON MRI

Spinal dysraphisms are congenital malformations of spine and spinal cord due to incomplete midline closure of osseous,mesenchymal and nervous tissue. It occurs between 2-6weeks of gestational age during the embryological development of spine and spinal cord by gastrulation, primary neurulation and secondary neurulation.

- **Gastrulation**:Transformation of bilaminar into trilaminar disc and formation of notochord from mesoderm cells.
- **Primary Neurulation**:Formation of neural plate and ends with closure of neural tube which occur bidirectionally in zipperlikemanner.This is followed by detachment of neuroectoderm from cutaneous ectoderm.
- **Secondary Neurulation**: Formation of caudal cell mass which undergoes cavitation to form secondary neural tube.Then by retrogressive differentiation forms the conusmedullaris and filumterminale.

CLASSIFICATION OF SPINAL DYSRAPHISM:

- Closed SDs: Neural placode and meninges are covered by skin or subcutaneous tissue.
- Open SDs: Neural placode is exposed to environment through spina bifida with dorsal expansion of subarachnoid space.

CLOSED SPINAL DYRAPHISM:

WITH SUBCUTANEOUS MASSWITHOUT SUBCUTANEOUS MASS

LIPOMYELOMENINGOCELE
SIMPLE DYSRAHIC STATES
COMPLEX DYSRAPHIC STATES

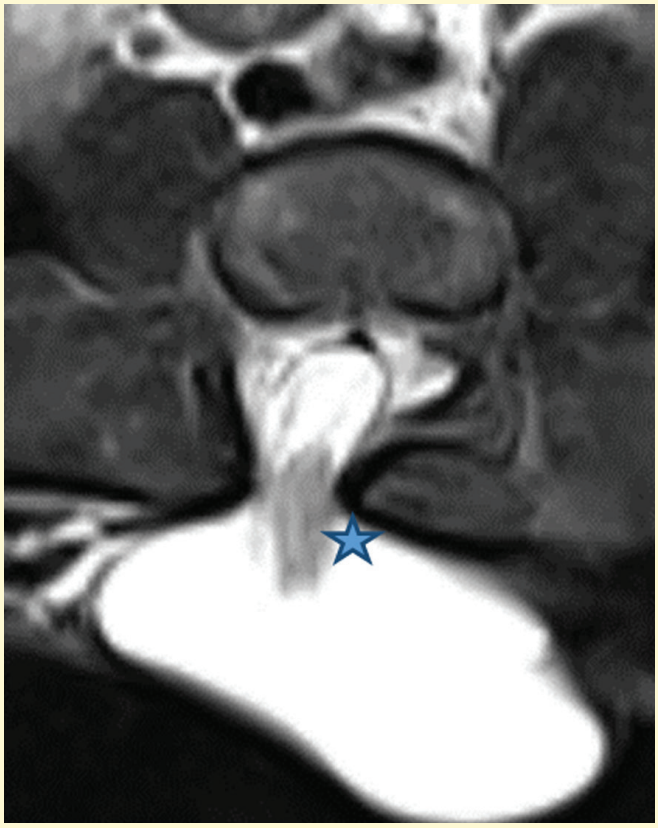
LIPOMYELOCELE
FILAR/INTRADURAL LIOMA
DIASTEMATOMYELIA

MENINGOCELE
TIGHT FILUM TERMINALE
DORSAL DERMAL SINUS

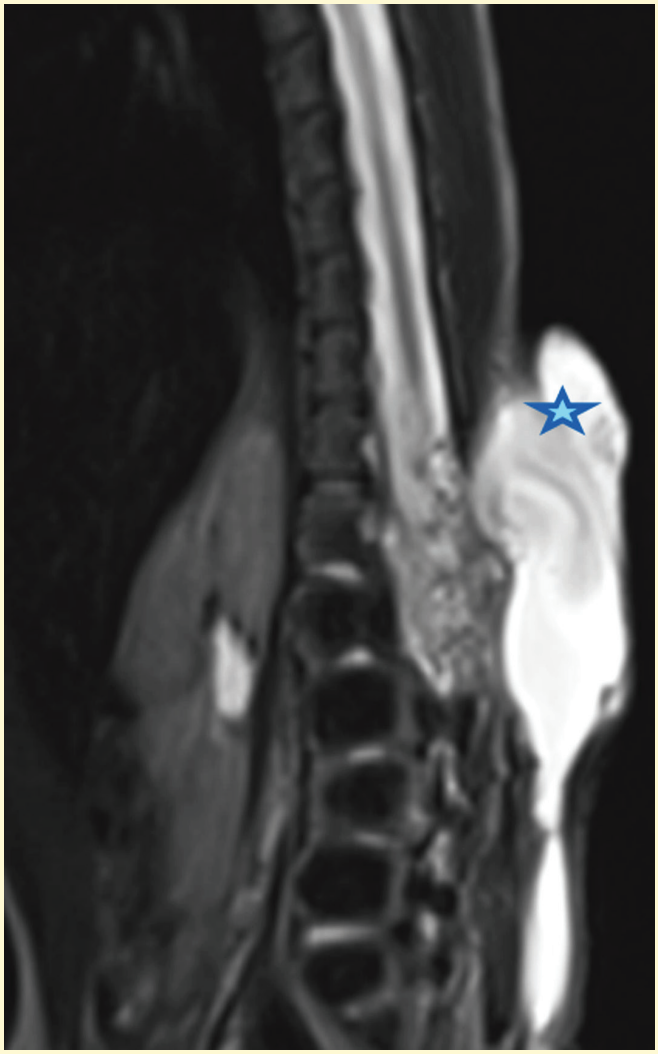
TERMINAL MYELOCYSTOCELE
PERSISTENCE OF TERMINAL
CAUDAL REGRESSION

VENTRICLE
SYNDROME

OPENSPINALDYSRAPHISM:MYELOMENINGOCELE
MYELOCELE
HEMIMYELOCELE/HEMIMYELOMENINGOCELE

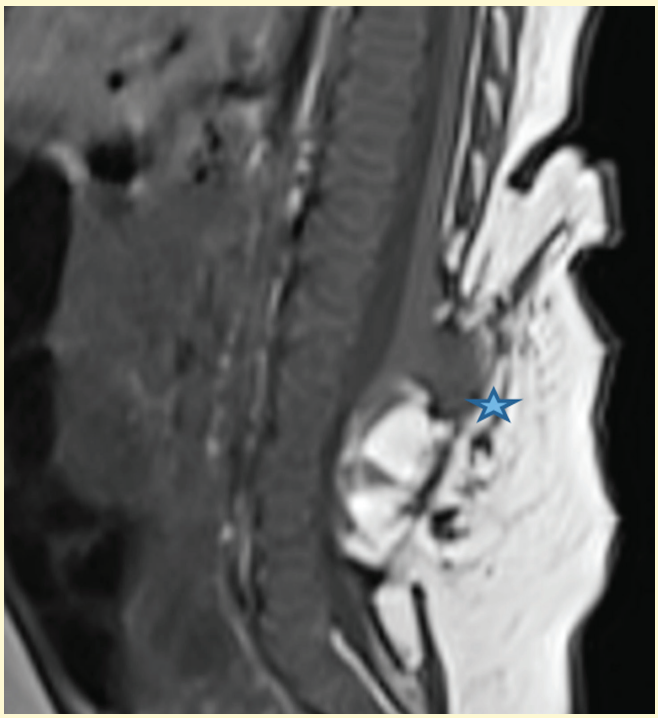


MMC-Placode is exposed to environment through spina bifida with dorsal expansion of subarachnoid space



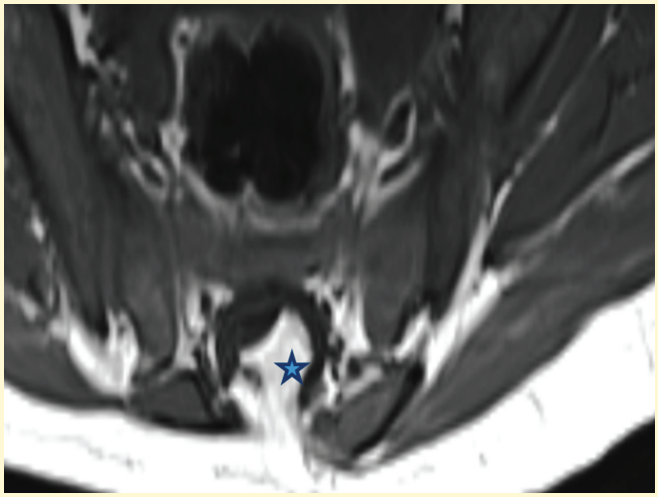
Meningocele-CSF hernia through spina bifida

Myelocele-Placode is flushed with skin

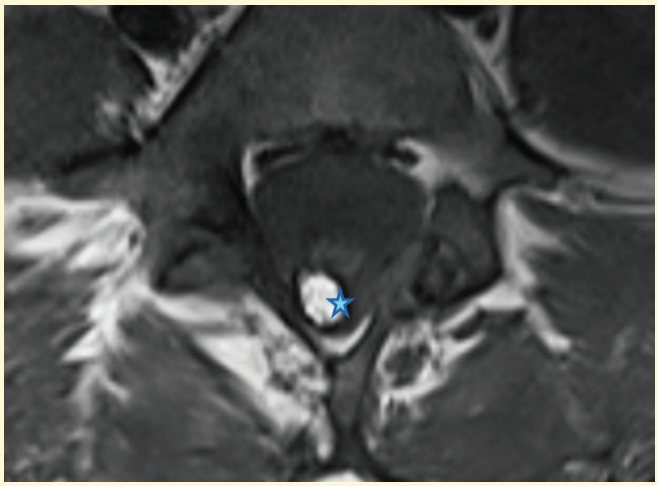


Lipomyelomeningocele-Cord lipoma interface is outside the canal

Lipomyelocele-Cord lipoma interface is at the level of neural arch

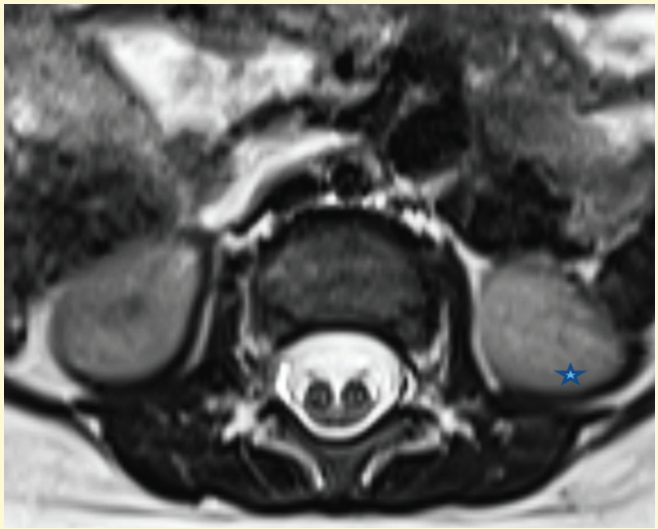


Lipomyeloschisis-cord lipoma interface is within the spinal canal



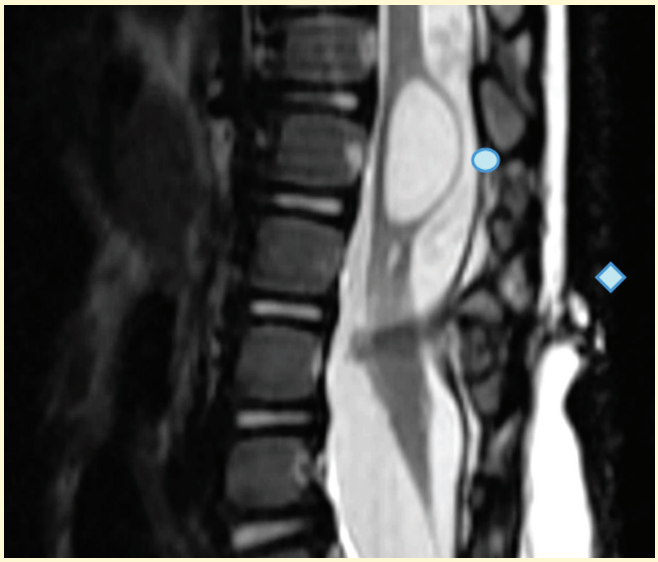
Intradural lipoma

Terminal myelocystocele-herniation of hydrosyringomyelic cavity into meningocele.
syrinx in cervical region

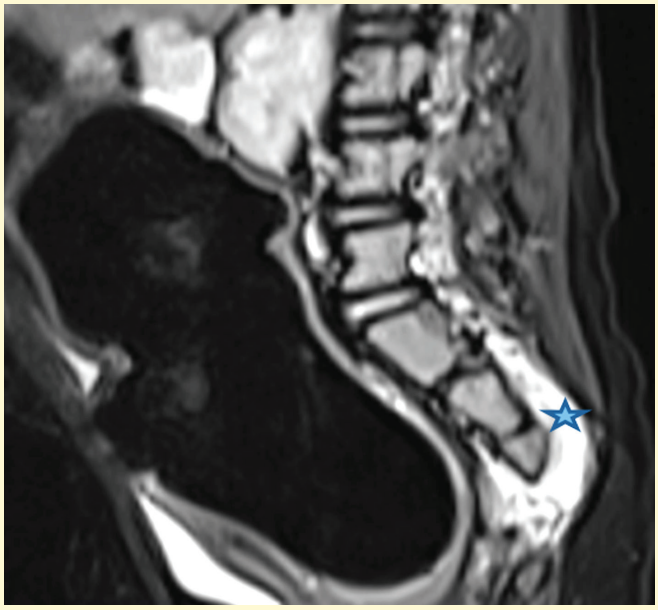


Diastematomyelia –II
Both hemicords are covered by single dural sac

Diastematomyelia –I with hydrosyrinx and dorsal dermal sinus



Both hemicords have individual dural sac separated by osteocartilaginous septum



Caudal regression syndrome(partial sacral agenesis) with imperforate anus

A CASE REPORT OF SACROCOCCYGEAL TERATOMA

Dr Ch Priyanka[1], Dr Aswathy Sunil[2], Dr Vijay pavan[3], Dr Anil[4], Dr Shanthi sree[5]

[1]Junior Resident, [2]Senior Resident, [3]Assistant Professor, [4]Associate Professor, [5]Professor and HOD of department of Radiodiagnosis, Gandhi medical college.

Dr Ch Priyanka
Final Year PG
Gandhi Medical College and Hospital,
Hyderabad

- A 2year old female child presented with swelling at lower back since birth, which is gradually increasing in size.No history of bowel and bladder incontinence. No history of bilateral lower-limb weakness. No history of pus discharging sinus. On Inspection,there is 5x4cms swelling noted in lumbosacral area.

IMAGING FINDINGS

Figure 1

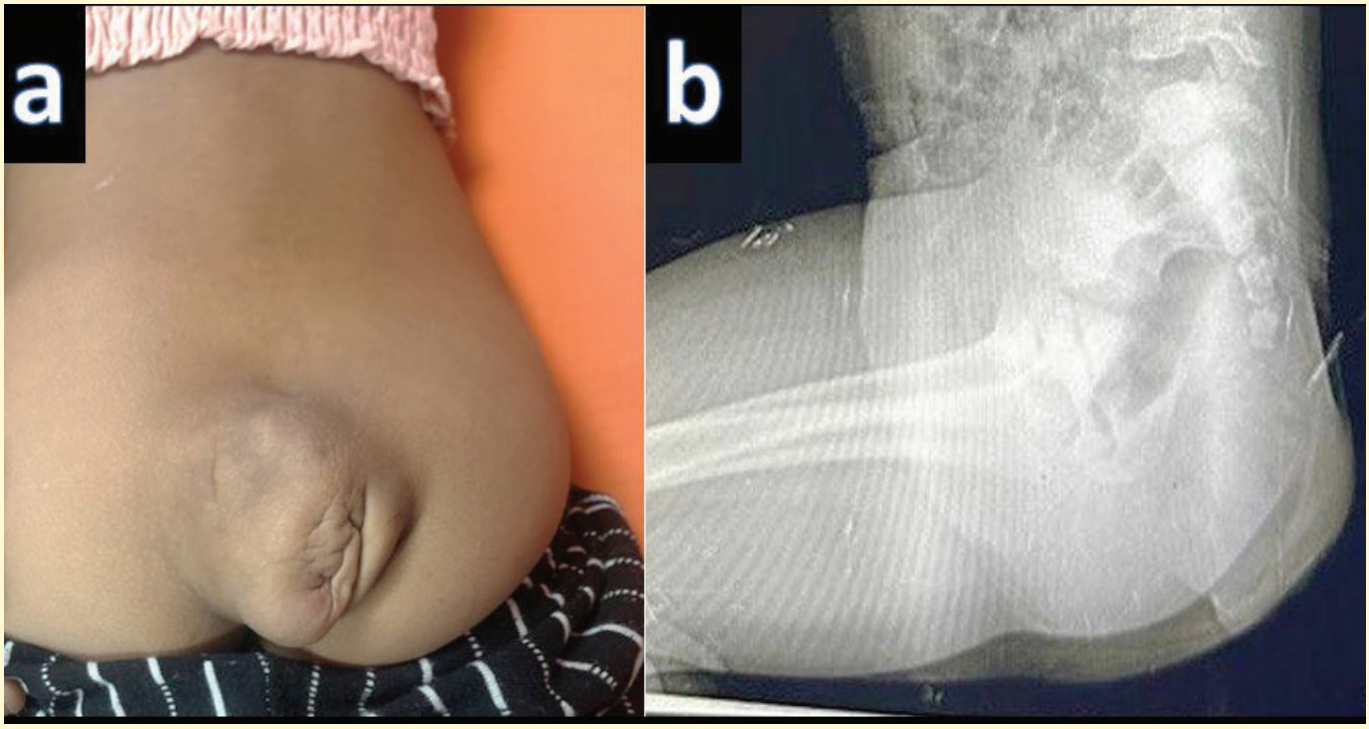


*Figure 1**(a)**Image showing swelling in lumbosacral area. **(b)**lateral radiograph of sacrum showing well-defined radio-opacity noted in sacral region anteriorly abutting rectal gas shadow.*

DISCUSSION

Sacrococcygeal teratomas are germ cell tumors containing elements derived from all three germ layers. Sacrococcygeal teratoma is the most frequently encountered presacral lesion in the pediatric age group, and most (90%) are diagnosed in the newborn period and are benign. The prevalence of malignancy increases with age; however, they are rarely discovered in adult life. They are found more frequently in females (1,2).

Figure 2

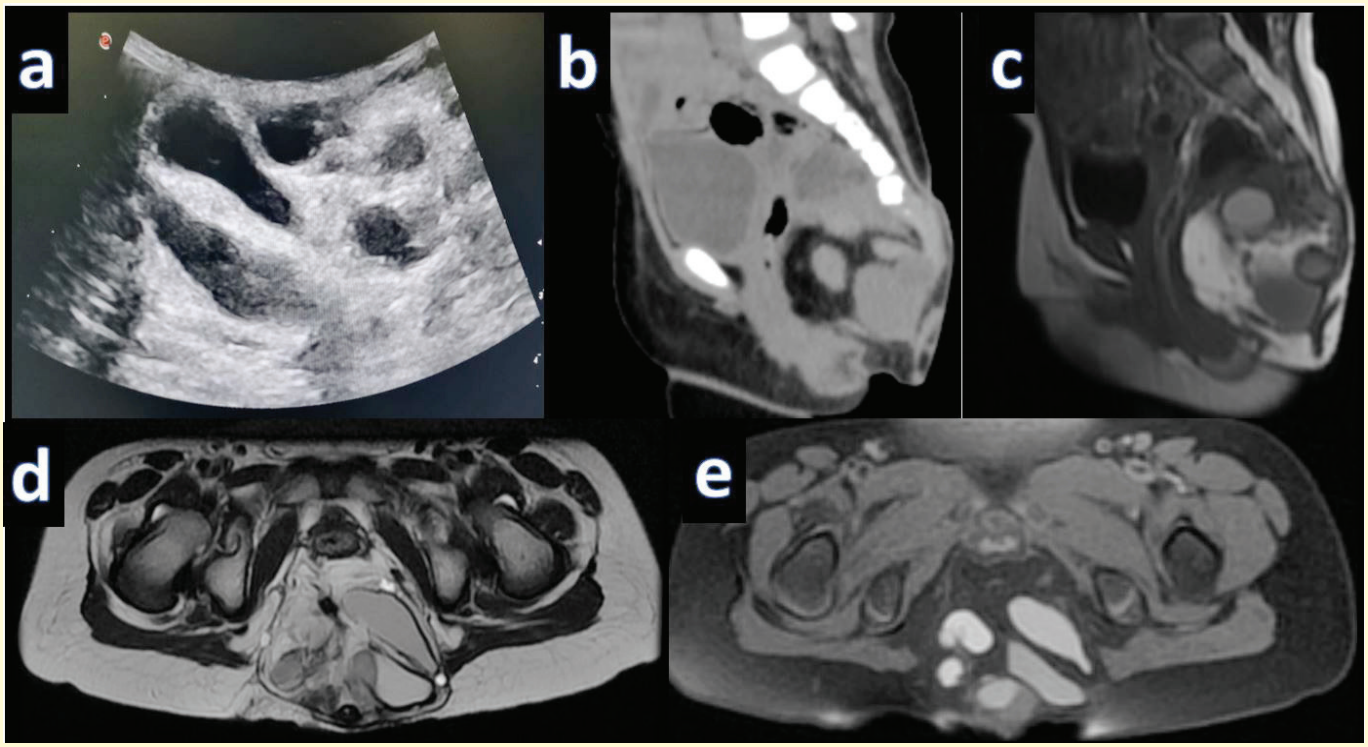


*Figure2**(a)** ultrasound image of swelling in perineum showing well defined lesion with anechoic cystic and hyperechoic areas within **(b)** Midline Sagittal CT pelvis image showing well-defined lesion with cystic and fat attenuating areas noted in retro-rectal space displacing rectum anteriorly. **(c)(d)(e)** Midline sagittal T1W MRI pelvis, Axial T2W and Axial T1FS images of pelvis showing well-defined heterogenous lobulated mixed signal intensity predominantly cystic lesion with fat signal intense areas within noted in pelvis in presacral region, displacing rectum anteriorly, inferiorly extending into posterior perineal triangle and abutting S5 sacral segment and coccyx posteriorly.*

Based on above imaging findings, possibility of **Sacrococcygeal teratoma** was considered.

CLASSIFICATION

A pathology-based classification is as:

- benign (mature): much more common, comprising ~ 60-70%
- malignant (immature)

The most commonly used classification is the Altman classification. It comprises four groups[3,4]:

Type I - predominantly extrapelvic masses with a small presacral component

Type II – extrapelvic masses with a significant intrapelvic component

Type III - extrapelvic masses with an abdominopelvic component

Type IV - intrapelvic masses with an abdominal component.

Imaging with computed tomography and magnetic resonance imaging helpful to determine the component(cystic,fat,calcifications,solid) of the lesion and extent of the lesion whether extrapelvic,intrapelvic or intra-abdominal.

DIFFERENTIAL DIAGNOSIS:

- **Anterior sacral meningocele** - Sacral defect in association with a well-defined uniocular fluid-filled lesion in retro-rectal space with stalk of the lesion shows communication with thecal sac
- **Tail-gut duplication cyst** – usual presentation at 30-60years of age.Uni/multilocular cystic mass in the presacral space with variable thick septa and occasional calcifications

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A CASE OF SPINDLE CELL TUMOUR OF VERTEBRA

[1]Dr. Ennam Pranaya Reddy, [2]Dr. G.Madhavilatha, [3]Dr. Anil and [4]Dr. Shanthi sree

[1]Final year PG, Gandhi medical college; [2]assistant professor; [3]Associate Professor; [4]HOD and professor, Gandhi Medical college

Dr. Ennam Pranaya Reddy
Final year PG
Gandhi Medical College and Hospital,
Hyderabad

A 45year old male presented with gradually progressive weakness of bilateral lower limbs since 4 months which progressed to complete weakness 20 days back associated with tingling and numbness of bilateral upper and lower limbs and loss of sensation of touch below nipple area since 20 days. Patient had history of trauma 8 years ago. No other comorbidities were present.

On MRI, diffuse expansile T1 iso-hyperintense, T2 and STIR hyperintense lesion noted involving body and posterior elements of C5 vertebra. Height of the vertebra was maintained. Thinning of cortex with few areas of cortical breech also noted. Post contrast lesion showed homogenous enhancement. Mass effect noted in form of compression of thecal sac and indentation of spinal cord with spinal canal narrowing at the same level. Short segment focal intramedullary T2/STIR hyperintensity was noted in cervical cord at C4-C5 level. There were no similar lesions or abnormal enhancement elsewhere in the spine. No evidence of adjacent soft tissue component seen.

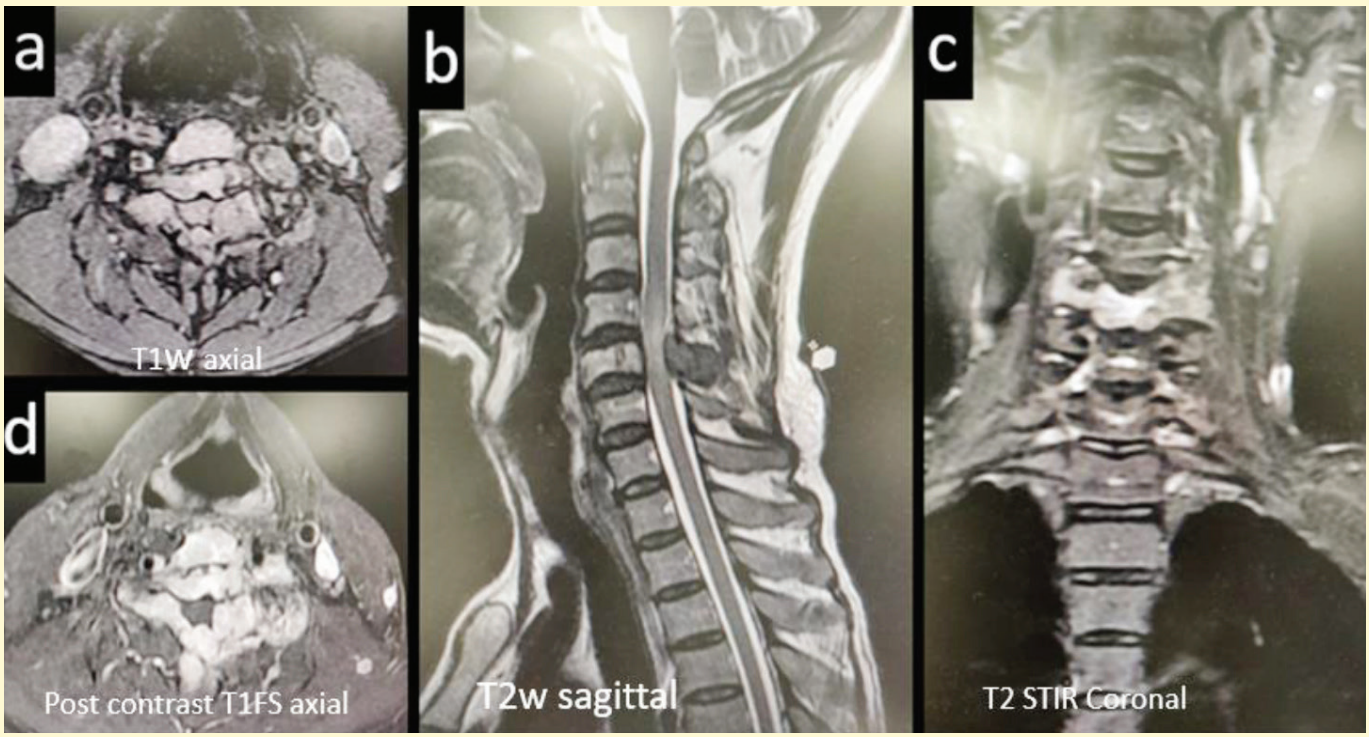
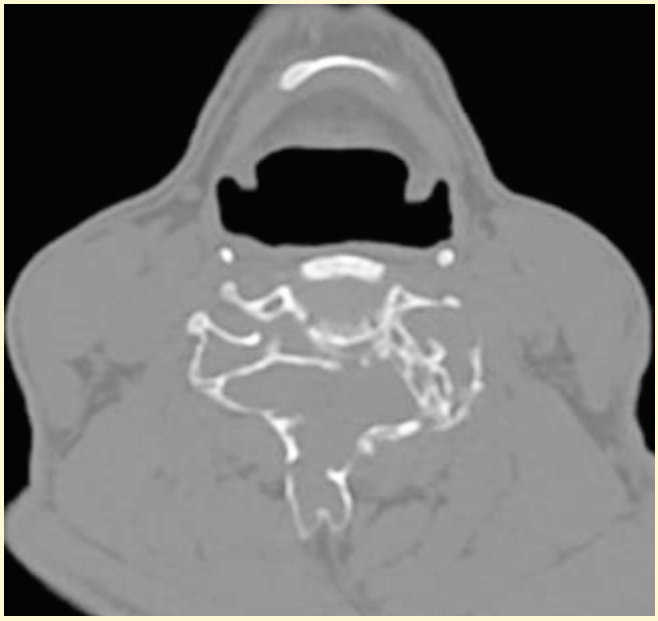


Fig a: T1 axial image at the level of C5 vertebral body is showing iso-hyper intense lesion involving whole of C5 vertebra. Cortical thinning with focal areas of cortical breech is also seen. Fig b: T2 sagittal image in which the lesion is iso-hyperintense involving C5 vertebral body causing indentation of ventral thecal sac and compression of spinal cord. Short segment intramedullary T2 hyperintensity is noted in cervical cord at the same level.Also noted T2w hypointensity involving spinous process Fig c: STIR coronal image, showing hyperintensity in body and transverse process. Fig d: Post contrast T1 axial image showing homogenous enhancement of the lesion involving anterior and posterior elements.

CT Spine was done further to evaluate for the osseous extent. There was expansile lytic lesion with cortical thinning and few areas of cortical breech. No evidence of similar lesions elsewhere in the spine.

HPE: Spindle cell tumour



CT Axial image at the level of C5 vertebral body, showing expansile lytic lesion with cortical thinning and cortical breech.

References:

Patnaik S, Jyotsnarani Y, Uppin SG, Susarla R. Imaging features of primary tumors of the spine: A pictorial essay. Indian J Radiol Imaging. 2016 Apr-Jun;26(2):279-89. doi: 10.4103/0971-3026.184413. PMID: 27413280; PMCID: PMC4931792.

Differential diagnosis:

Spindle cell tumour	Giant cell tumour	Solitary plasmacytoma
Tumours composed of spindle cells Includes malignant fibrous histiocytoma, spindle cell sarcoma, leiomyosarcoma, fibrosarcoma and angiosarcoma	Composed of osteoclast like giant cells within sheets of mononuclear cells	Focal proliferation of malignant plasma cells
4-7th decade, m=f	2-4th decade, f>m	>6th decade, m>f
Extremely rare tumours to occur in spine	Sacrum(90%)>CDL spine	D>L>C>S spine and skull
Posterior elements , can extend over multiple spinal segments	Vertebral body extending into pedicles	Vertebral body extending into pedicles
Extraosseous soft tissue involvement	Extraosseous soft tissue involvement(79%)	No extraosseous soft tissue involvement
Invasion of IVD and adjacent vertebra	Invasion of IVD and adjacent vertebra	Invasion of IVD and adjacent vertebra
• Solitary permeative lytic lesion with indistinct outline • Lobulated in shape Minimal to no sclerosis/ periosteal reaction	• Lytic lesion with cortical expansion • Absent mineralisation • Lack of sclerotic rim • Cystic areas, foci of hemorrhage, fluid-fluid levels, peripheral low signal intensity pseudocapsule can be seen	• Single collapsed vertebra • Expansile lytic lesion with preservation of cortical bone (thickened or sclerosed) *Hollow vertebral body or pedicle* Mini brain appearance • Multicystic soap bubble appearance • Solitary sclerotic plasmacytoma
T1, T2 -isointense	T1, T2 – low to intermediate	T1- low, T2- iso-high
homogenous enhancement	Enhancement of solid component	Marked homogenous enhancement

ARNOLD CHIARI TYPE II MALFORMATION: A CASE REPORT WITH REVIEW OF PRENATAL SONOGRAPHIC FINDINGS

Dr. Chilakala Harish
Second Year PG
Osmania Hospital, Hyderabad

INTRODUCTION:

Arnold chiari malformation with an incidence of 0.4:1000 livebirths is one of the CNS abnormalities that has formed 3% of all abortion and 1-2% of recurrent risk. Diagnosis of Arnold chiari malformation is made with prenatal Ultrasound or MRI for evaluation of posterior cranial fossa. Small posterior cranial fossa with descending cerebellar herniation of more than 5mm from foramen magnum is considered diagnostic of chiari malformations. There are a variety of sonographic findings, some very specific for Chiari II malformations which include lemon sign, banana sign, hydrocephalus, posterior elements defect in spinal canal and associated myelomeningocele.

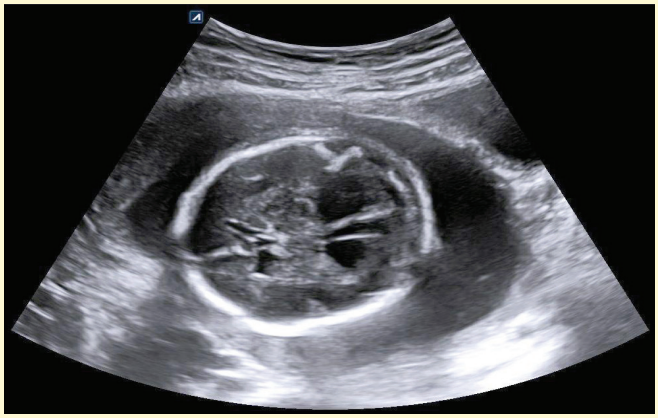
CASE REPORT:

A 22yr old pregnant women, primi gravida with 10 months of married life

No history of systemic illness,with no significant positive family history came for Targeted imaging for fetalanomalies(TIFFA) scan at 22 weeks of gestational age.

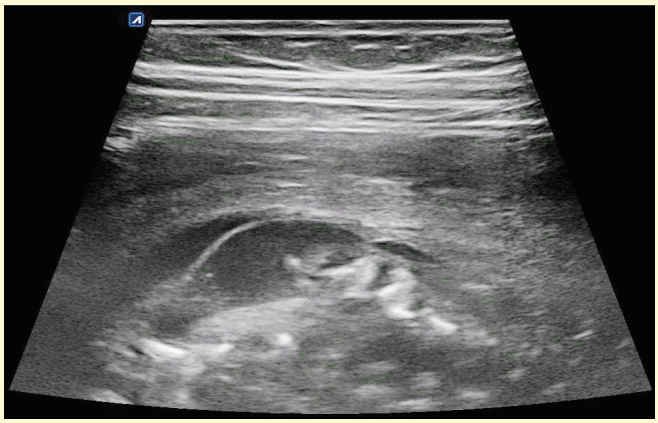
Sonographic findings showed multiple fetal anomalies including: small posterior fossa with downward displacement of cerebellum and fourth ventricle into the spinal canal , obliteration of cisterna magna, mild obstructive hydrocephalus, spina bifida with thoracolumbar myelomeningocele.according to these sonographic findings,Arnold chiari malformation type II was madeand termination was performed at 25 weeks of gestation.

Sono

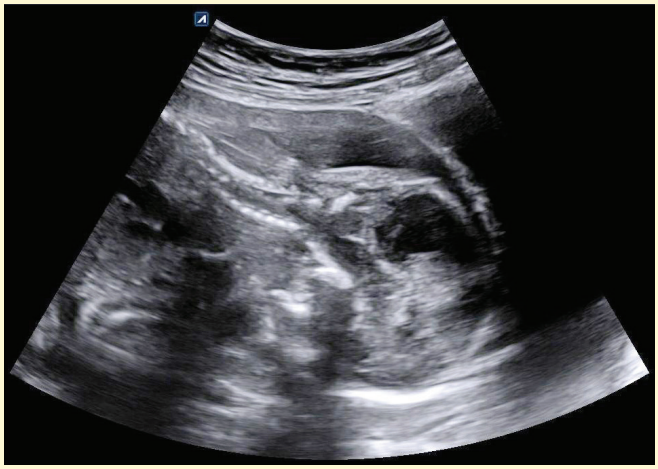


Sonographic image showing dilated lateral ventricles

Sonographic image showing thoracolumbar myelomeningocele



Sonographic image showing myelomeningocele



Sonographic image showing herniation of posterior fossa structures into cervical spinal canal through foramen magnum.

DISCUSSION:

There are four types of Arnoldchiari malformations described in literature – Types 1 to 4. These can be confidently diagnosed by postnatal MRI evaluation.

Type 1: Herniation of only cerebellar tonsil, not associated with myelomeningocele.

Type 2: Herniation of cerebellar vermis and brain stem into the spinal canal with spina bifida. Features include hydrocephalus, Medullary kink, tentorial dysplasia and is almost always associated with neural tube defects like myelomeningocele.

Type 3: Rare type of brain herniation associated with cephalocele or cranio cervical meningocele in which cerebellum and brain stem may be herniated.

Type 4: Extreme cerebellar hypoplasia and caudal displacement of posterior cranial fossa contents.

Tubbs et al described two additional type of chiari malformation

Chiari type 0- Syringohydromyelia with distortion of contents in posterior fossa but without cerebellar tonsillar herniation

Chiari type 1.5- Caudal migration of brainstem and cerebellar tonsils often associated with syringomyelia.

The feature of the Chiari II malformation that have been most useful are the infratentorial findings, these include effacement of the cisterna magna and deformation of the cerebellum, the so called banana sign, although other infratentorial abnormalities are commonly observed postnatally.Few studies have further divided the findings into mild, moderate and severe depending on the severity of narrowing of posterior fossa and alteration in morphology of cerebellum. Descriptors in the literature ranging from" effacement of the fetal cisterna magna" to the banana-shaped cerebellum to the absent cerebellum have implied a continuum of severity of PF deformity.

Few supratentorial abnormalities have also been described in literature which include abnormalities in tectal morphologic characteristics (fusion of the colliculi and upward deflection of the tectum result in prominent beaking and elongation of the tectum), altered shape of occipital horn that is pointed rather than rounded, corpus callosal dysgenesis, a small third ventricle, enlarged interthalamic adhesions and colpocephaly. These are readily appreciated on post natal imaging by MRI. Rarely, visceral anomalies and other musculoskeletal abnormalities have been described.

The severity of posterior fossa (PF) deformity was graded to mild, moderate and severe. The PF deformity was considered mild when smaller than normal (<2mm) but identifiable; cisterna magna was present and the cerebella which was large enough to be easily identified, did not appear misshapen.

A moderate deformity was diagnosed when the PF subjectively appeared somewhat small, the cisterna magna was effaced and misshapen cerebellar tissue could confidently be identified (banana shape).The PF deformity was considered severe when PF to be very small, the cisterna magna was affected and little or no identifiable cerebellar tissue was visible.

The diagnosis of myelomeningocele in a fetus is important for many reasons. It provides the parents with an opportunity to consider pregnancy termination. Among parents electing to continue the pregnancy, adequate counseling and psychological preparation can be provided.

In conclusion, the ultasonographic prenatal screening is emphasized as the primary method of assessment of the early fetal malformation. Early diagnosis of such malformation helps to make decision to offer further fetal karyotyping or termination of pregnancy.

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3. Callen AL, Stengel JW, Filly RA. Supratentorial abnormalities in the Chiari II malformation, II: tectal morphologic changes. J Ultrasound Med. 2009 Jan;28(1):29-35.
4. Nicolaides KH, Campbell S, Gabbe SG, Guidetti R. Ultrasound screening for spina bifida: cranial and cerebellar signs. Lancet. 1986 Jul 12;2(8498):72-4.
5. Callen AL, Filly RA. Supratentorial abnormalities in the Chiari II malformation, I: the ventricular "point". J Ultrasound Med. 2008 Jan;27(1):33-8.
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ACADEMIC ACTIVITIES OF IRIA TS CHAPTER

Monthly Meeting on 20th January, 2023 at Yashoda Hospitals Hitec city





10th Annual Multispeciality Medical Camp

IRIA TS chapter in association with Justice Konda Madhava Reddy Foundation and Apex Diagnostic Center organized the 10th Annual Free multi-speciality Medical camp at Sri Saraswati Sishumandir High School, Vikarabad on 22nd January 2023.

Dr. Vivek Reddy Keesara and Dr Prabhakar reddy sir actively coordinated for the last few months to make this camp a grand success.

Multiple specialist doctors, Radiologists, and Medical Non-Medical Staff from Hyderabad about 85 members participated in the camp.

Apollo, Yashoda, Omega, Century and Continental hospitals, Sai Dental College Hospitals, Vijaya Diagnostic Center etc. participated in the camp.

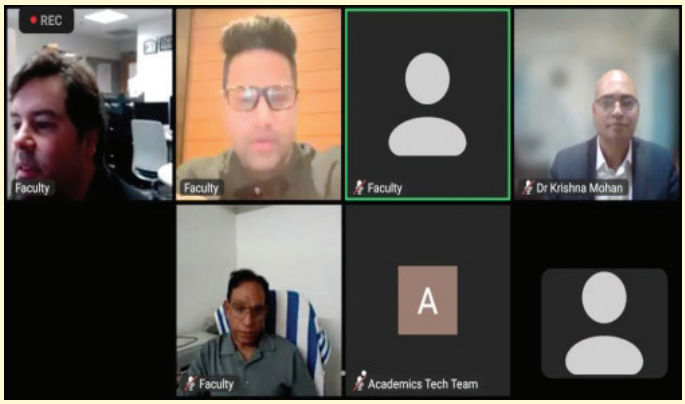
Around 700 patients attended the camp. 50 X-rays, 40 U/S scannings, 30 ECGs, 20 2D Echos, and 400 Blood Sugar Tests were performed. Ophthalmic Examinations were performed on 40 patients.

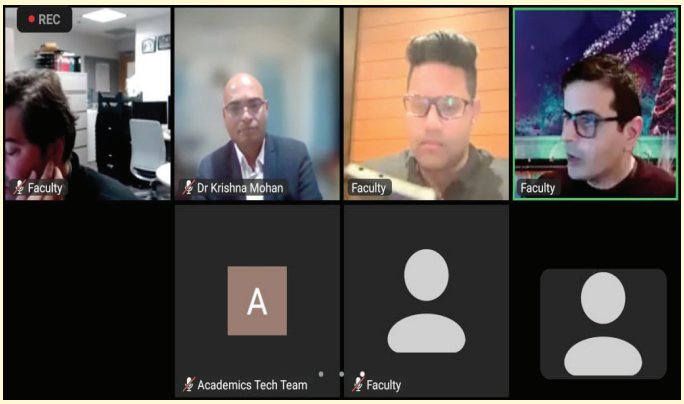
Former MP and Chairman of KMR Foundation Mr Konda Vishweshwar Reddy garu inaugurated the camp and awarded participation certificates to the Medical Staff.

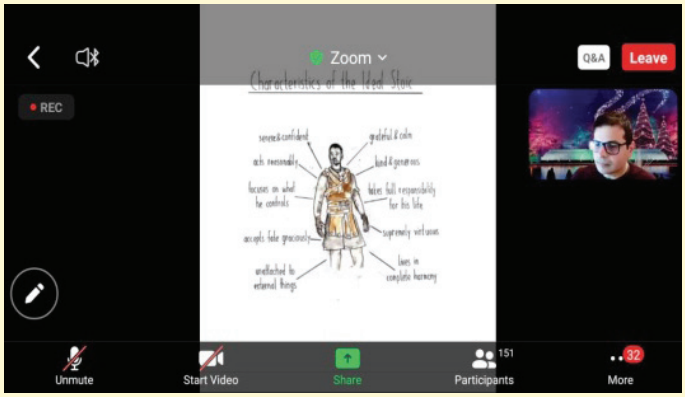
Free Medicines were given to the patients.

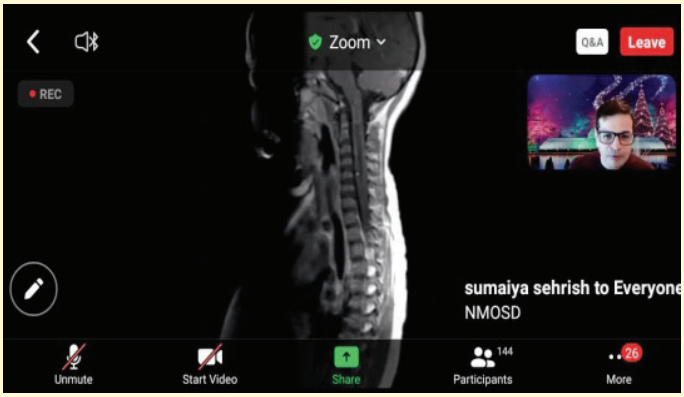
We would like to extend our heartfelt gratitude to all the doctors and healthcare professionals who have dedicated their time and expertise to serve the rural patients in the free health camp conducted by IRIA Telangana state in association with Justice Madhavareddy Foundation and Apex Diagnostics. Your selfless service and dedication to the well-being of others are truly commendable and we are grateful for your contributions to the community. Your hard work and commitment to providing quality healthcare to those in need are truly inspiring and we are honoured to have you on our team. Thank you for your unwavering dedication to the health and well-being of others.

Paediatric Neuroradiology Webinar on 28th January, 2023









National preventive Radiology One-Day conference

National preventive Radiology One-Day conference along with ultrasound liver Elastography hands on workshop has been organised successfully on 19 th February 2023 with 150 delegates at Basava-tarakam Indoamerican cancer hospital auditorium, Hyderabad. Conference was grand success.

This event was organised by IRIA Telangana state chapter along with National IRIA.

Dr Prabhakar Rao, CEO and Dr Subramanyeshwarrao, Director of Indo-American cancer hospital were Chief guest and Guest of honour for the inaugural ceremony.

Dr U V Krishnamurthy, senior Radiologist and author of our IRIA pledge was felicitated during this event.

Dr Krishna Mohan, Dr Rijo Mathew, Dr Rajas Choubal, Dr Praveen Nirmalan and Dr Vijay Bhaskar delivered very informative talks during the conference.

Program faculty Dr Raheem, Dr Murali Mohan Reddy, Dr Gayathri Senapati trained all the delegates in Elastography.

Conference was well received by all the delegates who participated with interest and enthusiasm.

Mr Ekambaram of Mindray Ultrasound Company also delivered a talk during the conference.

International Women's Day Celebrations on 11th March, 2023 at Century Hospital

The IRIA TS organised a grand international Women's day celebrations 2023 on 11th of March along with monthly academic meet.

Senior women radiologists, Dr. V. Satyabhama, Dr. I. Sridevi, Dr. T. Surrekha, Dr. C. Anitha and Dr. N. Krishnaveni were felicitated and their contributions to the field of Radiodiagnosis appreciated. Dr. Varsha Joshi was felicitated for being elected as the President of ISHNR. She delivered a guest lecture on "Imaging in Sensorineural deafness". Dr.Jwala Srikala spoke on this occasion on "Challenges of being a lady radiologist". Post graduate students, Dr. Archana from Gandhi Medical College and Dr.Pooja from Bhaskara Medical College also shared their thoughts on the occasion.

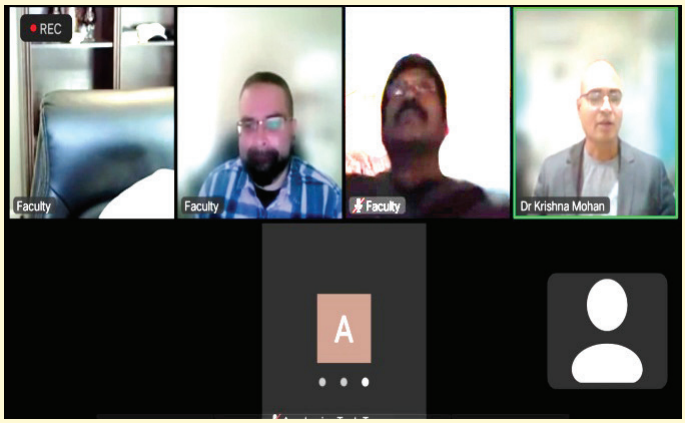

IRIA TS CHAPTER
International Women's Day
WELCOME

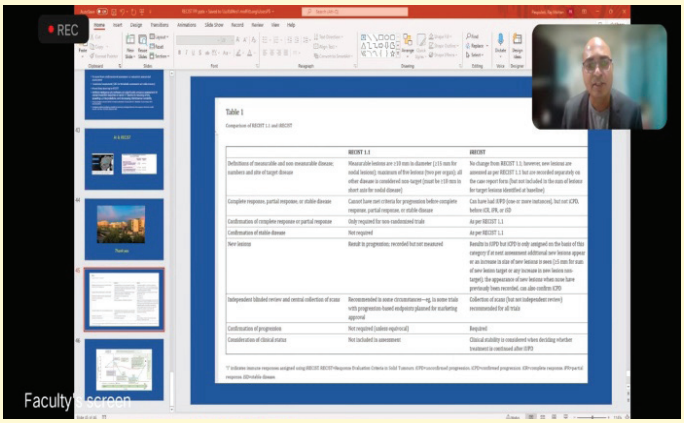

IRIA TS CHAPTER
International Women's Day
WELCOME
INTERNATIONAL
Women's Day
Celebration
Organised by
INDIAN RADIOLOGICAL
& IMAGING ASSOCIATION,
Telangana State Chapter
Date:
11th March, 2023 at 6:00 pm

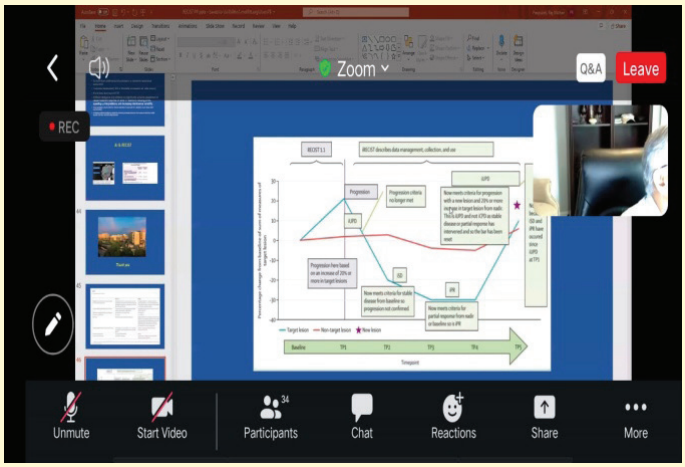

IRIA TS CHAPTER
International Women's Day
WELCOME

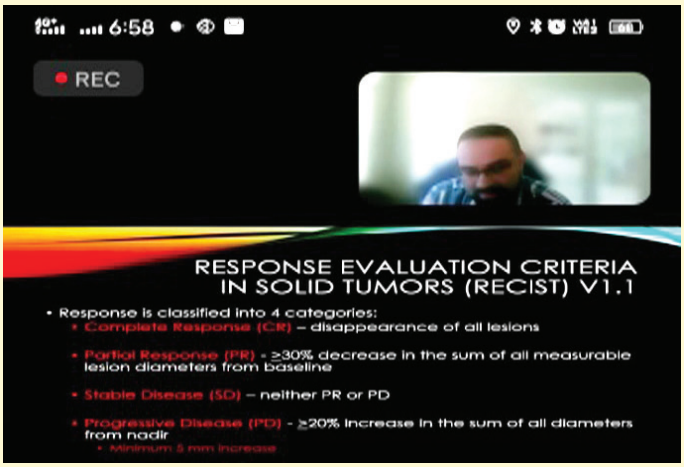

IRIA TS CHAPTER
CENTURY
WELCOME

UPDATE ON RESPONSE EVALUATION CRITERIA IN SOLID TULMORS (RECIST)
Webinar on 02nd April, 2023

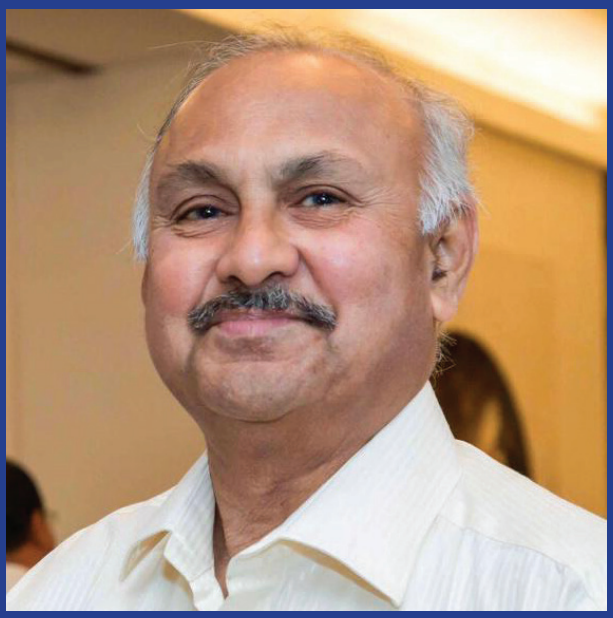








OBITUARY



It is with a heavy heart that we share the news of the passing of Dr. G S N Murthy, a senior and respected member of our association.

Dr. Murthy was an accomplished radiologist and a beloved member of our community, who contributed greatly to the field of radiology and imaging.

We offer our deepest condolences to Dr. Murthy's family and loved ones during this difficult time. We recognize that his loss will be felt by many, and we share in the grief and sadness of those who knew him well.

Dr. Murthy's legacy and contributions to the field of radiology will not be forgotten. His knowledge, dedication, and kindness will continue to inspire and guide us in our work. We are grateful for the time we had with him, and we will cherish his memory always.

Our thoughts and prayers are with his family and loved ones during this difficult time.

UPCOMING CMES

1 ***May Last Week***
Webinar on Emergency Radiology
Online

2 ***24th & 25th June, 2023***
Advanced Joint Imaging & Interventions
Hands On-Cadaver Workshop
at Mamata Academy of Medical Sciences,
Bachupally, Hyderabad

3 ***July -2023***
22nd Hyderabad Annual Radiologic
Physics Course (HARP)

IRIA Telangana State Chapter:
www.iriatelangana.org

IRIA National Chapter:
www.iria.org.in

ICRI (Indian College of Radiology and Imaging):
www.icri.co.in

AOSR (Asian Oceanian Society of Radiology):
https://theaosr.org

AMS (Asian Musculoskeletal Society):
www.asianmsk.org