AOSR
The Asian Oceanian Society of Radiology

The Asian Oceanian Society of Radiology Newsletter

Highlights In This Issue

Thoughts from the President's Office

Celebrating the IDoR in Nepal

Getting to Know Your AOSR Councillor - Prof. Noriyuki Tomiyama

AOSR Councillors' Achievements

ASIASAFE, AOSR-IAEA Webinar: Radiation Safety in Interventional Radiology

The CONNECTED Radiologist - AOSR Value-based Radiology

RSNA's First Asia Global Learning Centre - Jakarta

Getting to know our Member Societies

AOSOR Youth Club 2022

***In Memoriam* - Prof. Guozhen Li**

Quiz

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Evelyn Ho & Bui Van Giang (Vietnamese Society of Radiology and Nuclear Medicine) *'balance'* on the RSNA 3D-Mural by Nate Baranowski. *Photo courtesy of Bui Van Giang.*

Thoughts from the President's Office

-'Do what you can, with what you have, where you are'
– **Theodore Roosevelt, 26th US President**

Evelyn Lai Ming HO MMed Radiology, FAMM
AOSR President *Apr 2021 - Feb 2023*

As my AOSR President's term draws to a close at the AOCR2023 in Bangkok, I wish to express my appreciation and acknowledge everyone who served on the council and committees, and the individuals out there who supported the surveys, were speakers at webinars, moderators, and many other activities of the AOSR & AOSOR, including ASIASAFE and the AOSR secretariat. We hope you enjoyed the AOSR-wide webinars on non-interpretive topics of MR Safety, Radiation Safety (in collaboration with the IAEA), AI issues that impact all of us as well as educational webinars that the various AOSR committees worked to bring these to fruition. A big thank you as well to the many who attended these webinars and gave us feedback. There are still ongoing projects, such as revamping our AOSR website and the AOSR Structured Template Reporting (ASTeR).

cont'd p.2

There is always room to grow, and AOSR has just entered its next half century recently.

- Let us emerge stronger from the pandemic, where collaboration and cooperation are stronger than ever, and everyone rapidly learns how to harness digital tools.
- Let us work to ensure we continue to bring value to our patients and healthcare at large, cognizant of costs and not just doing more tests which may not change the management of the patient.
- Let us work with our non-radiology colleagues to ensure we are more effective, together.
- Let us improve our communication skills and talk to our patients to ensure we are visible as a profession.
- Let us contribute actively to healthcare beyond the walls of our institution, but to the community at large and to better global health.
- Let us not fear AI, but harness it for good, to enable efficiency whilst freeing up time to be a doctor to our patients.

Join me in wishing the heartiest congratulations to the incoming AOSR President, Prof Noriyuki Tomiyama. The 'Getting to know your AOSR councillor' will feature him in this issue.

Last but never least, let us appreciate each other more, be kind and live with an attitude of gratitude.

Sawadeekha and see you all at the AOCR2023 in Bangkok.

With warmest wishes and Happy New Year 2023,

Nepal Radiologists' Association (NRA) Celebrates International Day of Radiology (IDoR) 2022

By Dr Sundar Suwal, General Secretary, Nepal Radiologists' Association

We celebrated IDoR 2022 throughout Nepal. We did a free ultrasound camp on 5th November 2022 to create awareness about ultrasound and who can perform the ultrasound in Nepal. We did a total of 210 ultrasound screening examinations of the abdomen and neck.

On 8th November, the NRA executive body organized a rally, marching with the banner of IDoR in the morning. At the end of the rally, our president Prof. Dr. Hensan Khadka and senior radiographer Prof. Ganesh B. Pokharel gave a speech about the importance of IDoR.

On the same day we also organized a blood donation camp in Kathmandu, at Bir Hospital (oldest and largest government hospital of Nepal). A total of 25 people donated blood in the camp.

Radiologists as well as radiographers throughout Nepal also celebrated IDoR 2022 with various programs.

A Note from Dr Evelyn Ho, President, AOSR

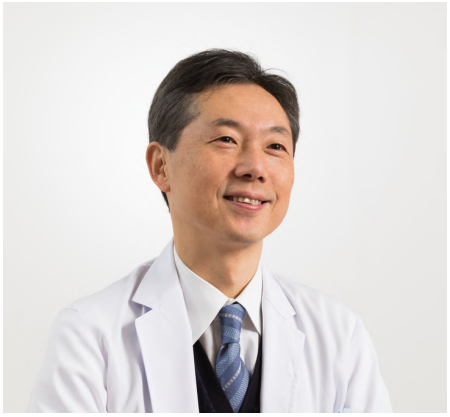
The AOSR has been delighted to endorse the well-organised Nepal-wide IDoR program. The AOSR also supported the Kazakhstan initiative by contributing a short video message to their efforts. In addition, we posted messages on the AOSR social media sites on Nov 8, 2022.

Find out more about IDoR at https://www.internationaldayofradiology.com/

Getting to know your AOSR councillor -

Prof. Noriyuki Tomiyama, *MD,PhD*

President-Elect of AOSR



I have been the Chairman of the Diagnostic and Interventional Radiology, Osaka University Graduate School of Medicine since 2010. I obtained both my MD and PhD at the same university. I am a board member of Japan Radiological Society (JRS) and am the President of Japan Radiology Congress (JRC). My affiliations include Fleischner Society and International Society for Strategic Studies in Radiology (IS3R). My specialty is chest imaging and my current researches include in-depth studies on lung cancer, mediastinal tumors, interstitial pneumonia, and computer-assisted diagnosis.

I have served as an Executive Council member of AOSR since 2016 after Prof. Kazuro Sugimura. I had a wonderful opportunity to become an Honorary Secretary in 2018 and after that I became President-elect in 2021.

I have four children, a son and three daughters. My oldest daughter is married, living near my house, and I am a happy grandpa of two lovely granddaughters. My son is a doctor working at the National Center for Global Health and Medicine in Tokyo. He aspires to pursue a career in public health. My second daughter made a choice to become a radiologist and joined my department this year. My third daughter is in her first year of residency.

I started playing golf in my fifties. My golf game is improving slowly but it is a good exercise and refreshing. It is a great pleasure to play golf with my friends.

AOSR celebrated its 50th anniversary last year. In the half century, Asian and Oceanian countries have been growing and have developed rapidly in the field of radiology. The role of radiologists becomes truly important in the clinical setting. It is a great honor for me to become the President of AOSR at AOCR2023 in Thailand.

Congratulations to Dr Evelyn Ho on Receipt of the RSNA Honorary Member Award

By Dinesh Varma, AOSR Immediate Past President

Dr Evelyn Lai Ming Ho was awarded the RSNA Honorary Member award at the recent 2022 RSNA in Chicago. She joins a select group of people who have made special contributions to the profession of radiology.

RSNA President Dr. Bruce Haffty (left) with Dr. Evelyn Ho (right)

Excerpt from the October RSNA NEWS online and in print:
"Dr. Ho's dedication and leadership are most impressive," said RSNA President Bruce G. Haffty, MD. "Her contributions, from her leadership in Malaysia and the Asian Oceanian Society of Radiology to her work in breast imaging and her dedication to advancing women's health throughout the world, make her ideally suited for this Honorary Member award."

Prof. Joseph Lee (left) with Dr. Evelyn Ho (right)

Dr Ho is a passionate advocate for breast health and palliative care and believes the patient's interests should always be at the core of medical care.

After earning her medical degree from the University of Malaya, Dr. Ho served under the Ministry of Health of Malaysia in Sarawak, East Malaysia, and in Kota Bahru before returning to Kuala Lumpur in 1990. Dr. Ho practices as a consultant radiologist in Park City Medical Centre Kuala Lumpur.

She has served internationally in leadership roles, including as secretary and treasurer of the ASEAN Association of Radiology from 2004-2006 and was the first female president of the College of Radiology (CoR) under the Academy of Medicine Malaysia (AMM). In 2010, she was elected to the AMM council, and appointed Bursar from 2014- 2016. While serving the AMM, Dr. Ho was involved in the early days of setting up the continuing professional development system in Malaysia.

She is president of the Asian Oceanian Society of Radiology, serves on the RSNA News Editorial Board, chaired the RSNA Regional Committee for Asia Oceania, and is an executive committee continental member of the International Society of Radiology.

Dr. Ho is a Fellow of the AMM, Honorary Fellow of the Academy of Medicine, Singapore, and Honorary Member of the Chinese Society of Radiology.

AOSR Immediate Past President Receives the RANZCR Gold Medal

Dr. Dinesh Varma (left) with RANZCR President Dr. Sanjay Jeganathan (right)

Heartiest congratulations to our immediate past president, Dr Dinesh Varma on being conferred the Royal Australian and New Zealand College of Radiologists Gold Medal in October 2022 at the Annual Ceremony during the RANZCR 72nd Annual Meeting.

The RANZCR Gold Medal honours a Fellow who has rendered outstanding service or benefactions to the development, teaching or practice of clinical radiology or radiation oncology in Australia, New Zealand or Singapore.

Dinesh works at Alfred Health Melbourne, Australia and has been the recipient of other College awards in the past including the Roentgen Medal. His subspecialty area is Emergency and Trauma Radiology and he has made significant contribution to the development of the subspecialty nationally and internationally.

ASIASAFE, AOSR-IAEA Webinar: Radiation Safety in Interventional Radiology (IR)

By Dr Evelyn Ho

The 2nd ASIASAFE, AOSR-IAEA webinar took place on 21 Oct 2022 at 7pm GMT+8. AOSR is delighted that via ASIASAFE, there is collaboration with IAEA through Dr Ola Holmberg, Head of the Radiation Protection of Patients Unit in the IAEA. Our invited speakers were Prof Chadia Rizk who shared her Lebanese experience on radiation protection of workers and patients in image-guided interventional procedures and Prof Bien-Soo Tan, who gave the radiologists' (aka clinical) perspective on radiation safety in IR. Prof Kwan-Hoong Ng was the moderator.

Interventional Radiology, i.e. IR using fluoroscopy or CT guidance can potentially increase radiation risk to patients, especially if the fluoroscopic or angiographic imaging technique and radiation dose is neglected. IR procedures are increasing all over because of its diagnostic and therapeutic value, IR procedures are also being more and more performed by non-radiology physicians. From the 2020/2021 UNSCEAR report, out of all the procedures involving ionizing radiation, IR procedures only forms about 0.6% of the total but a whopping 8% of the collective effective dose. **This is NOT an INSIGNIFICANT contribution.**

Dr Evelyn Ho in her welcome/opening remarks said, "We have to admit, very often in our efforts to ensure a successful procedure, we may NOT take into consideration radiation dose – as we are very committed and totally absorbed to ensure a successful outcome. In our belief system, we feel it is justified in benefit vs risk assessment. Whilst in some cases, indeed, it may be between life and death - Herein lies our pitfall and where the patient may be exposed to radiation risks, especially for those who may need repeated procedures in their lifetime or have very complex procedures."

Prof Rizk showed that with commitment and effort, it is possible to ensure equipment is optimized, radiation exposure of both patients and workers could be monitored and the need for staff to be trained in radiation protection can be effected. Prof Tan started in dramatic fashion with a movie clip related to cosmic radiation and subsequently spoke about the need to be intentional, disciplined and frequently reminding ourselves of the need to be radiation protection conscious.

As the duration of image guided procedures (whether CT or fluoroscopic) were highly variable depending on the complexity and type of intervention, Prof Tan said, it would be too easy to disregard or turn off the 'alarm' which some of the newer equipment had once a certain threshold of radiation exposure had taken place. Yet, he was also quick to say, there should be serious attention to it and not ignore it as routine. In fact, someone in the team should be empowered to act more firmly. He also reminded everyone where the resources for radiation protection guidelines could be found, yet, one of the reasons why this webinar was taking place was because the degree to which radiation protection was enforced was not optimal yet. He said that the role models on the ground had to be radiologists leading the way and we had to be disciplined about it.

During the discussion and Q & A session, Prof Tan mentioned that Lebanon was a very good example to emulate, and that one did not need to be a high-income country to ensure and implement radiation protection seriously. Many countries in Asia Oceania did not have enough medical physicists but the minimum would be a well-trained and accredited radiation protection officer (RPO). Lebanon has started a post-graduate course in radiation protection this year. Eventually, Lebanon would look into assessing competency and accreditation.

Singapore has not gone as far as the Lebanese experience, but public institutions have electronic medical records and patients can sign up on a health application to access some of their own e-records. The hope is that each patient will have their accumulated radiation doses from procedures.

Some of the questions were on what happens if the "dose" had been exceeded. In the clinical situation, a complicated and complex case may take a longer time, naturally exceeding national DRLs but the patient was saved. Prof Rizk explained that an individual patient's dose during a procedure should not be compared with the national dose reference levels (DRLs). DRLs were not dose limits. It required collecting the data and calculating the median value for specific procedures before comparing with the DRL. Then, if it exceeded the DRL, remedial action must be taken after finding out the reason/s for it.

As for responsibility for justification, it was primarily that of the referring physician.
Who should be the person informing the patient, and what to look out for (such as potential radiation induced skin changes) once the "trigger" dose had been exceeded during the procedure? It should be the responsibility of the referring physician as well as the procedurist and definitely not that of the nurses. The procedurist should also inform the referring physician of the situation.

In conclusion, it is our collective responsibility to make the practice of IR safe for everyone involved. Whether we have prior knowledge about radiation, radiation safety and radiation protection or whether we are non-radiologists practicing intervention, we have **NO excuse** if we harm the patient and ourselves in the process of diagnosis and treatment.

About Our Speakers:

To review the webinar...

CLICK HERE

https://aosr.vidocto.com/

The Radiologist - A Radio DJ, Radio Repairer or a Photographer? The CONNECTED RADIOLOGIST - AOSR Value-Based Radiology

By Dr Evelyn Ho

Many are not aware who or what a radiologist or even a radiologic technologist is. In a conversation with a senior radiographer, the discussion was how we sometimes need to explain what and who we are. Radio deejay, radio repairer and even a photographer have been offered when we ask people at random whether they knew what a radiologist did.

Radiologists have become invisible through the years especially after digitalization (PACS, EMR). It is time to emerge from the reading room as doctors who contribute in a very important way to the healthcare of a patient from diagnosis to treatment. This webinar, which was the first AOSR webinar in 2023, held on January 17th, 7pm (GMT+8); is a timely initiative to ensure the robust advancement of the profession that is both visible and valued as well as valuable to our community in Asia-Oceania

Three speakers, each with a wealth of experience to share on various aspects of being connected, visible and valued as radiologists and a guest panelist with yet another perspective enriched the panel discussion that followed the talks. They were Dr Geraldine McGinty (The Visible & Valued Radiologist), Dr Chantsalsuren Galbaatar (Engaging Colleagues in Medicine), Dr Angelica Robinson (Captivating Communicator – Radiology Beyond the Reading Room) and Dr Charles Goh, covering questions related to how education and training of residents could prepare them as better communicators. Moderating the session was Dr Evelyn Ho, then AOSR President.

It was evident that despite the extra efforts, and time spent on becoming more visible to patients, colleagues, and community – everyone was clearly enjoying what they were doing and deriving personal and professional satisfaction in the process. What proved helpful in efforts to get out of the reading room included finding allies such as supportive colleagues, educators, and professional bodies.

Feedback and attendance was most encouraging. There were 246 registrations and 101 who attended live, mostly from 11 countries/region in Asia-Oceania as well as a handful of attendees from Lithuania, Saudi Arabia and Portugal.

Snippets of feedback from our audience :

Fantastic webinar! Very timely and much needed discussion – MTB, Philippines
Very good and very impressed with the speaker from Mongolia – CC, Thailand
Excellent talks, well done. Looking forward to more - MMS, Malaysia

About Our Speakers and Panelists:

Dr McGinty is Senior Associate Dean for Clinical Affairs, Professor of Clinical Radiology and Population Health Sciences. She was the 2020-2021 President of the American College of Radiology. She is an internationally recognized expert in imaging economics. She was Chair of the American College of Radiology's Commission on Economics. In 2015 she was voted Radiology's Most Effective Educator by the readers of Aunt Minnie, a radiology news site with more than 140,000 members. She has more than 18000 followers on Twitter.

Dr Galbaatar is a Clinical Radiologist at the Intermed Hospital Mongolia. She completed radiology residency in 2018 in the Mongolian National University of Medical Sciences. She is CEO of the Mongolian Medical Women's Association where she works on empowering projects for women in medicine to develop leadership skills and networking. She also conducts patient education events and hosts regular Women in Medicine podcasts on YouTube in Mongolian.

Dr Robinson, an Associate Professor of Radiology is a passionate breast imaging radiologist and popular public speaker. She has served as chair of the Susan G. Komen Houston Medical Advisory Panel, and nationally as Co-Moderator/Director for the National Medical Association 2019, 2020 Breast health symposia. She created the University of Texas Medical Branch CARES program which has provided over 1000 free mammograms for uninsured women in Galveston County, Texas.

Dr Goh is a Consultant Radiologist in the Dept of Nuclear Medicine & Molecular Imaging and Deputy Chief Medical Informatics Officer, Singapore General Hospital. He is actively involved in the training of residents. He is a faculty member for the National Nuclear Medicine Residency Training Program, National Diagnostic Radiology Residency Training Program, the National Family Medicine Residency Training Program and the National Final Master of Medicine (Radiology)/FRCR Preparatory Course.

Our speakers have kindly agreed to this webinar being published on AOSR's YouTube channel. **Check out *www.youtube.com/@aosr* if you missed this webinar that can help you make a positive difference to your practice.**

The RSNA's First Asia Global Learning Centre Is in Jakarta

By Dr Reyhan Eddy Yunus

The Department of Radiology, Faculty of Medicine Universitas Indonesia – Cipto Mangunkusumo Hospital (FKUI-RSCM) in Jakarta was successfully chosen as one of the Global Learning Centers (GLC) under the Radiological Society of North America (RSNA) after rigorous selection and competition with several radiology education centers across the globe. The RSNA Committee on International Radiology Education (CIRE) has selected the Radiology Department of FKUI-RSCM as a partner in GLC program for 2023 - 2026. Through the GLC, RSNA is committed to support learning and development of radiology in Indonesia.

GLC is a partnership program between RSNA and low to middle-income country radiology departments which aims to improve education and clinical services in radiology. The program works by receiving applications from institutions that qualifies for a global education center for radiology in their country. The RSNA with the selected institution will develop appropriate education plans according to each nation's requirements including curriculum for online or offline training, lectures conferences, and courses.

The appointment of the Department of Radiology FKUI - RSCM as the latest RSNA GLC site signifies the trust for collaboration in Indonesia and the first site for GLC in Asia which is full of potential and hope for the future. This opportunity will be utilized by the Department of Radiology FKUI - RSCM to develop the field of radiology education and services to be more advanced with guidance and sharing direct experiences with radiology colleagues from the United States.

Reyhan Eddy Yunus, MD, MSc as the Chair of Department of Radiology FKUI - RSCM hopes that this collaboration will be an invaluable experience to learn and share the knowledge with other radiologists in Indonesia and possibly with other countries in South East Asia as a GLC RSNA site from 2023 – 2026.

Getting to know our Member Societies - Radiological Society of Thailand (RST) & Royal College of Radiologists of Thailand (RCRT)

By Dr Chamaree Chuapetcharasopon, MD
AOSR Honorary Secretary, Member of RST & RCRT

Radiological Society of Thailand (RST) has been established in 1962 by the group of senior radiologist leaders in Thailand. Prof. Dr. Luang Phinphakphitthayaphet (Who has been known as the “Father of Thai Radiology”) served as the First President of the Radiology Society for 14 years.

The main objectives of the society are to promote the academic advancement in radiology including research and education not only for radiology related personnel but also to the public. The other objective is being a legal body to represent radiology related professionals in Thailand. The members are from radiology related fields, scientists and healthcare professionals who are interested in radiology.

In 1992 Professor Dr. Romsai Suwannik, the former president of the society applied to establish the College of Radiologists of Thailand, to the Medical Council according to the new regulation at that time. The main objective is to be responsible for Radiologists' training in Thailand on behalf of the Thai medical council. In 1995, His Majesty the King (King Rama the IX) accepted the College of Radiologists of Thailand under the Royal Patronage as the "Royal College of Radiologists of Thailand"(RCRT). Since then RST and RCRT work closely together to help promote "Radiology" in Thailand and represent Thailand in the international radiological community.

Back in November 1983, RST hosted the 4th AOCR which was the first largest international radiology congress held in Thailand. This year in 2023 after 40 years from the last AOCR in Bangkok, RST and RCRT received the honor to be the host organizing committee for the 21st AOCR.

Welcome all of you to the 21st AOCR, Bangkok, Thailand 9th-12th February 2023.
We hope that we will meet many old and new friends from our Asian Oceanian region and other guests from overseas.

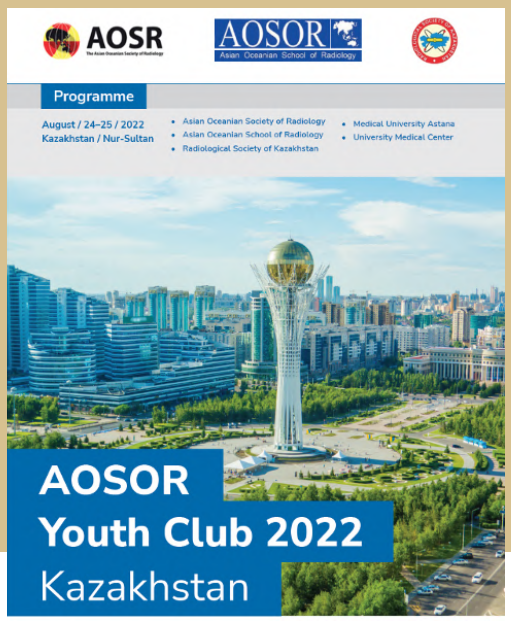
https://aocr2023.com/

AOSOR Youth Club 2022 - Hybrid meeting

Co-organised by AOSOR & Royal Society of Kazakhstan

The AOSOR Youth Club (YC) 2022 was successfully held by the Asian Oceanian School of Radiology and Radiological Society of Kazakhstan in Nur-Sultan of Kazakhstan from August 24 to 25, 2022.

This is the first Youth Club since the beginning of the COVID-19 pandemic. This event was held in hybrid format to accommodate international travel restrictions. The physical venue of the meeting was in the University Medical Center in Kazakhstan.



Abu Dhabi Plaza. Shopping and entertainment centers

Khan Shatyr. Shopping and entertainment center

Nur Alem Pavilion-museum

Selected attendees attended the physical meeting in Kazakhstan, while a few joined online. Eleven specialized local and overseas tutors from different AOSR member societies were invited to give a total of 18 lectures and workshop sessions.

The attendees comprising young radiologists and nuclear medicine physicians actively participated and there had been lively interactive activities and discussions during the program.

Despite various recent restrictions and challenges, the AOSOR-YC 2022 continues to serve as a great opportunity to provide an educational, social and academic program to foster future core leaders of AOSR and intersociety relationships.

We look forward to the AOSOR Youth Club 2023 and the opportunity for friendly in-person occasions in future meetings.

Radiology Quiz

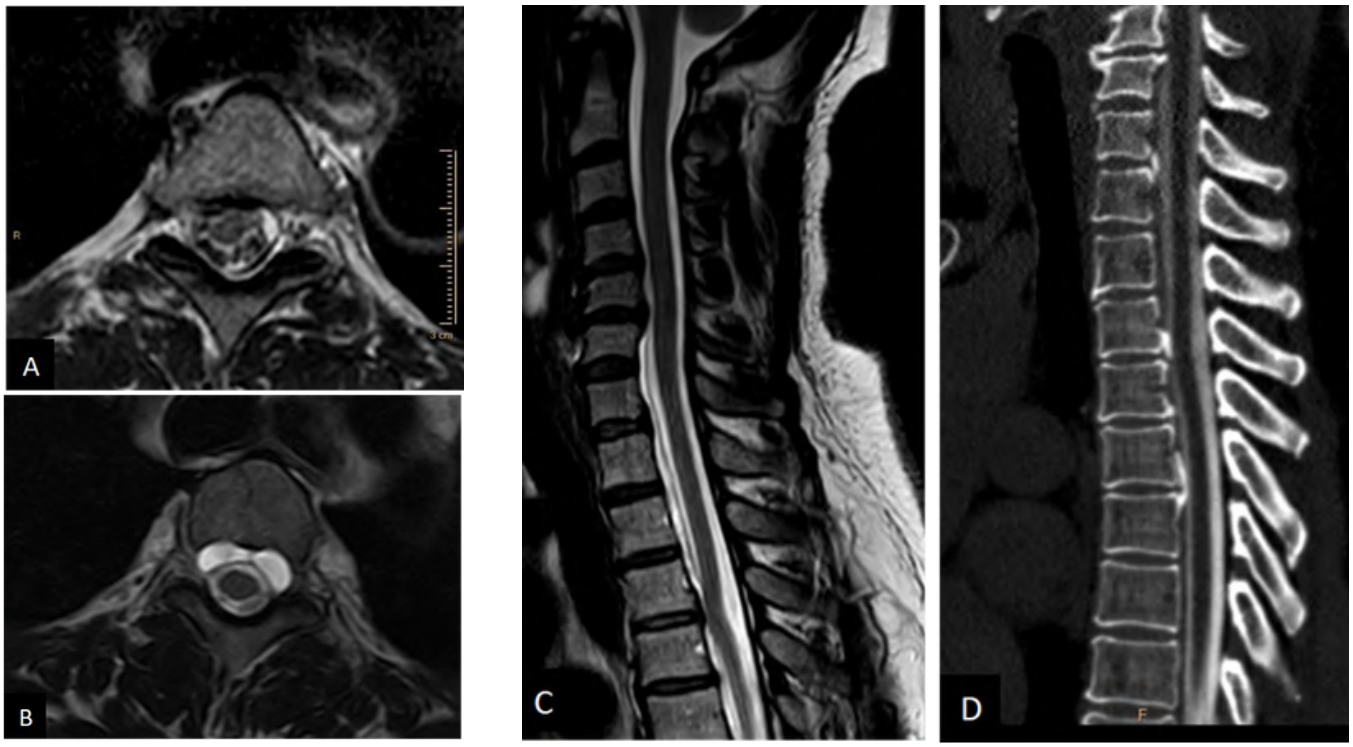
Case contributed by Dr. Drushi Patel; Dr. Hemant Patel; Dr. Keyur Mandaliya, Gujarat Imagining Centre, Ahmendabad.

Question:
A 51 year old female presented with impaired right lower limb hemianaesthesia for temperature sensation since 1 year. Previously her complaints were affecting right lower limb up to the level of right knee but now the sensation abnormality had progressed up to right lower back with onset of mild right lower limb pain. Pin prick and tactile sensation were intact.
She did not have any history of trauma or major illness.
MRI thoraco-lumbar spine was performed and later CT myelography was also performed.

Options:
a. Arachnoid cyst
b. Ventral cord herniation
c. Dorsal arachnoid web
d. Posterior intra-dural extra-medullary cystic mass

Images cont'd next page

MRI thoracolumbar spine (Images A - C)
CT myelogram (Image D)



In memoriam: The Grand Dame of China Radiology - Professor Guozhen Li 李果珍 (1915-2022)

By Emeritus Prof Kwan-Hoong Ng, Malaysia with contributions from Dr Evelyn Ho and Dr Lilian Leong

Professor Guozhen Li, admired by many for her lifelong dedication to Radiology, passed on at the age of 107 on Nov 27, 2022. She pioneered and modernized radiology in China, bringing it to greater heights. She was the epitome of the Chinese proverb 活到老学到老 (one is never too old to learn). The degree to which Prof Li was recognized in China is evidenced by the commemorative stamps issued when Prof Li was 100 years old.

The AOSR is proud to have known and worked with her. Professor Li, was awarded the AOSR Gold Medal in 2006. The photo on the right from 2014 shows Prof Li (right) with Dr Lilian Leong, AOSR Past President. (*Photo courtesy of Dr Lilian Leong*)

More about her life and career are found in the Aunt Minnie Europe tribute article and ESR obituary.

Aunt Minnie https://www.auntminnieeurope.com/index.aspx?sec=log&itemID=623472
European Society of Radiology https://www.myesr.org/article/3518

The AOSR Executive Council

Executive Council
2021 - 2023

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College of Radiology,
Academy of Medicine of Malaysia

Immediate Past President
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Dinesh VARMA
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Answer to the Radiology Quiz

Answer:

Ventral cord herniation.

Imaging findings :

MRI findings (image A, B and C)

Focal distortion of the thoracic spinal cord is seen at T3 to T4 levels, appearing anteriorly displaced with resultant mild widening of dorsal CSF space giving 'Scalpel sign'.

The thoracic cord at T3-T4 level is seen protruding through the dural sac at left antero-lateral aspect (at level of anterior funiculus) at T3-T4 level, suggests ventral cord herniation.

No evident adjacent cord oedema is noted at the level of ventral cord herniation.
It is associated with anterior intraspinal extradural CSF intensity loculated collection in cervico-thoracic region, most marked at T2 level.

Disc osteophyte complex at T3-T4 level causing indentation over ventral aspect of dural theca.

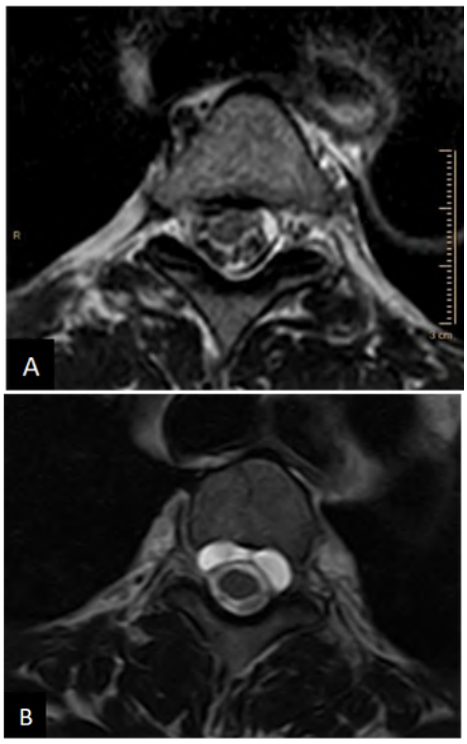
CT myelography findings (image D):

Posterior osteophyte is seen at T3-T4 level Indenting dural theca.

Intrathecal contrast is seen circumferentially opacifying the CSF space surrounding the cervico-thoracic cord. Thoracic spinal cord is seen anteriorly displaced and focally distorted at T3-T4 level with resultant widening of dorsal CSF space.

Axial CT myelography images show focal ventral herniation of thoracic spinal cord at left anterior paramedian aspect, through the dural theca at T3-T4 level, just inferior to the above-mentioned posterior osteophyte at T3-T4 level.

On delayed CT myelography images, contrast opacification of anterior epidural space extending from C6-C7 to T7-T8 level, most marked at T2 level suggest dural leak of contrast.



Discussion cont'd next page

Answer to the Radiology Quiz

Discussion :

Ventral cord herniation is a rare cause of cord myelopathy due to herniation of the thoracic cord through a dural defect. Usually, it is following surgery or trauma. Idiopathic cases are usually localized to dorsal cord and can be congenital or without noticeable antecedent history of trauma.

Clinical presentation can be variable, generally with features of myelopathy. However, progressive Brown-Sequard syndrome is a classical manifestation as in our case due to focal herniation of the cord.
The underlying cause of ventral cord herniation is thought to be a dural defect allowing the subarachnoid space to communicate with the extradural space, which can be congenital or acquired. The thoracic cord, naturally closely applied to the ventral dura due to the normal thoracic kyphosis then 'plugs' the hole and gradually herniates through the defect. It is this normal anatomical relationship between the ventral theca and anterior thoracic cord which accounts for this entity only being encountered in the anterior aspect of the mid to upper thoracic spine. The distortion of the cord parenchyma, formation of adhesions, and possible vascular compromise, in turn, leads to myelopathy and neurological dysfunction.

The key imaging feature is focal distortion and rotation of the cord with no CSF seen between it and the ventral theca. Widening of the dorsal CSF space is known as the scalpel sign. In most instances, axial images would demonstrate the the cord focally bulging beyond the confines of the theca. MRI can identify the associated cord edematous changes if present.

Small extradural CSF intensity collection may also be seen, thought to represent the bulging CSF-filled arachnoid layer. CT myelography can demonstrate the contrast leak through the defect as well as delineate the focal bulging of the cord through the defect as in our case.

CT can also demonstrate a hyperdense focus at the site of herniation - posterior osteophyte - probable causative agent for the dural rent and resultant cord herniation.

Surgery with division of adhesions and closure of the dural defect, which may require a dural graft/duroplasty, is curative. In most cases symptoms improve, however depending on the degree of pre-operative myelopathy complete recovery may not occur.

MRI and CSF flow studies can help differentiate spinal arachnoid cyst and dorsal arachnoid web from ventral cord herniation.

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