Tough questions and tricky dilemmas abound in fast-moving world of trauma imaging

BY KATRINA MEGGET

Time is of the essence when it comes to a polytrauma patient, yet numerous questions continue to arise about how and who should be scanned and for which conditions. For a close-knit multidisciplinary trauma team, making the right imaging decisions for patients with severe injuries can be complex and a matter of life and death. Trauma specialists will share their experiences at today’s session.

Advances in radiology have played an important role in the management of polytrauma patients – those with multiple and potentially lethal injuries, such as a combination of a pelvic ring fracture with laceration of the bladder or a haemothorax with blunt aortic injury. But specific guidelines on imaging such patients are in short supply, creating a multitude of questions, said Dr. Monique Brink, radiologist at Radboud University Medical Centre, Nijmegen, the Netherlands.

Brink, radiologist at Radboud University Medical Centre, Nijmegen, the Netherlands.

Polytrauma patients generally undergo primary care according to advanced trauma life support (ATLS), a training programme for the management of acute trauma cases that provides a solid framework and common language based on treating what kills people first. Prior to this, however, the radiologist has already been involved in the preparatory time-out procedure and briefing on the incoming polytrauma patient. This can provide the information needed for the radiologist to decide when and how to perform imaging, to determine which examinations are justified and which modalities should not be used, and work out how the CT protocol should be tailored to the specific trauma patient, and the radiologist should advise whether further imaging is necessary.

This represents a major challenge, especially when specific guidelines on how and who should be scanned are only partly available. For example, no general consensus criteria exist for the justification and scanning protocol of whole-body trauma CT, although some decision tools have been developed to guide the use of brain, chest and neck CT, and a few good quality prospective studies on this topic have been conducted, she continued. Furthermore, there are significant and specific questions around which patients should undergo CT angiography of the neck to exclude blunt carotid injury and whether radiologists should perform split bolus CT in all patients.

Brink plans to address some of these issues today, and she intends to update ECR delegates on the most relevant guidelines on trauma imaging, while other speakers from the multidisciplinary trauma team will outline how to understand which traumatic diagnoses are made changes.

She acknowledged there was an issue around who should supervise or perform trauma imaging evaluation, noting that the diagnostic approach of a trauma CT scan is different to any other total body CT scan, for instance.

“Should this be a dedicated emergency radiologist with both general knowledge of all body parts, and specific competencies in acute radiology? Or should every radiologist invest in trauma radiology experience and knowledge?” Brink asked. “Are senior residents on-call competent enough to perform trauma radiology without immediate supervision by a radiologist? Is scan slicing ‘primary evaluation of different body regions by different radiologists’ a good idea or does this interfere with adequate teamwork?”

Indeed, there was a further question about whether radiologists should position themselves in the trauma bay.

“You could argue that the presence of a (resident) radiologist during the whole resuscitation process is not efficient, and hard to implement in daily practice.
A population of over 1.3 billion people and a continually changing economy pose great challenges for the Chinese healthcare system. This also affects the Chinese radiology scene, which developed in quite a different way to those in other countries. This will be one of the aspects covered in today’s ESR meets China session.

Look back at the history of radiology in China, and it has followed a long and winding road. Prof. Zhang Xiu Jin, Chair of the Radiology Department at Beijing Union Medical College Hospital, will discuss this at the beginning of today’s session. In years ago, radiologists were setting reports with hand-written prescriptions, while patients came to the technologists. There has been tremendous progress and transformation in the last few decades. Radiology plays an increasingly important role in the prevention and treatment of diseases in China and has reached advanced global standards in certain fields. In the future, radiology will illustrate this at the beginning of today’s session.

Prof. Zheng Yu Jin, Chair of the Radiology Department at Peking Union Medical College Hospital, will report on Chinese experiences regarding the interventional therapy for hepatocellular carcinoma. Prof. Shao-Xing Wang, chair of Radiology at Beijing Union Medical College Hospital, will discuss the technical and clinical applications of artificial intelligence in abdominal pelvic imaging, specifically focusing on its clinical value in certain cancer patients. Dr. Joost Peters, a consultant in radiology at the Department of Radiology at St. Elisabeth Hospital, will report on Chinese experiences regarding the interventional therapy for hepatocellular carcinoma.

Afterwards, five lectures will provide insights into radiology practice in China today. Kicking off will be Prof. Tu-Shih You from the Department of Radiology at Shanghai Jiao Tong University School of Medicine in China, who will discuss multimodality fusion analysis in imaging liver lesions and hepatocellular carcinoma, which is very common in the Chinese population. According to the population-based cancer registration data for 2014, approximately 103,000 new cases of hepatocellular carcinoma will be discovered every year. It is a key role in this development process for Chinese radiologists, who will discuss multiparametric analysis in imaging liver disease.

The primary survey: talking ABC

Multidisciplinary Session

Sunday, March 4, 10:30–12:00, Room B

» Radiomics nomogram to predict lymph node metastasis in patients with colorectal cancer and a multicentric clinicopathological analysis in abdominal pelvic imaging

» Interventional therapy for hepatocellular carcinoma: Chinese experience

» Multimodal imaging for insulinoma detection

» Introduction

» Interventional therapy for hepatocellular carcinoma: Chinese experience

» Multimodal imaging for insulinoma detection

» Radiomics nomogram to predict lymph node metastasis in patients with colorectal cancer

Chinese Society of Radiology looks forward to increased international communication and collaboration

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» Radiomics nomogram to predict lymph node metastasis in patients with colorectal cancer
The use of imaging for radiotherapy treatment has undergone extraordinary development during the past decades. More than any other treatment modality, radiotherapy relies heavily on medical imaging to delineate the extent of disease and the spatial relationship between the target region and neighboring healthy tissue. An inherent goal of radiation therapy is to deliver enough dose to the tumour to eradicate all cancer cells or to palliate symptoms, while avoiding normal tissue injuries.

Imaging for cancer diagnosis, staging, treatment planning, and radiation targeting has been integrated in many ways to improve the chance of this occurring and the adoption and implementation of various imaging approaches into the process of cancer detection, diagnosis, and treatment is gaining increasing importance in radiotherapy. An area that is undergoing rapid development to parallel advances in radiation delivery is a large spectrum of imaging strategies and technologies that have evolved.

New imaging approaches for radiotherapy are a very relevant topic of interest in today’s course. Following his presentation, Dr. Minerva Valentini, from the Radiation Oncology Department at the Università Cattolica S. Cuore, Rome, Italy, who will chair the session together with Prof. Michael Fuchsjäger and Prof. Minerva Valentini, from the Department of Radiological Imaging Sciences and Interventional Radiology, from the Radiation Oncology Department at the Università Cattolica S. Cuore, Rome, Italy, will offer an insight into MR-LINAC technological advances and potential applications in RT.

Image-guided interventions: a key pillar in radiotherapy

Recent years have seen dramatic improvements in imaging technologies for radiotherapy, as a panel of experts will highlight at ECR 2018. In today’s joint session of the ESR and ESTRO (European Society of Radiotherapy and Oncology), speakers will provide an update on the role modern imaging plays in radiotherapy planning and delivery, with an eye to the advances on the horizon, aiming to inform both radiologists and radiation oncologists.

BY KATHARINA MIEDZINSKA

Image of a locally advanced rectal cancer case (cT3N2M0) treated with neoadjuvant chemoradiotherapy delivered with a MRI-Tri 60Co hybrid machine at the Gennadi Advanced Radiotherapy Center of the Fondazione Policlinico Universitario ‘Agostino Gemelli’, Università Cattolica del Sacro Cuore, Rome. bulky First (left) and last (right) fraction of the treatment clinical complete response has been achieved

Provided by Prof. Minerva Valentini

When asked what core message he would like to deliver to the impact of new imaging technologies for radiotherapy, Dr. Minerva Valentini, from the Radiation Oncology Department at the Università Cattolica S. Cuore, Rome, Italy, who will chair the session together with Prof. Michael Fuchsjäger and Prof. Minerva Valentini, from the Department of Radiological Imaging Sciences and Interventional Radiology, from the Radiation Oncology Department at the Università Cattolica S. Cuore, Rome, Italy, who will chair the session together with Prof. Michael Fuchsjäger and Prof. Minerva Valentini, from the Department of Radiological Imaging Sciences and Interventional Radiology, from the Radiation Oncology Department at the Università Cattolica S. Cuore, Rome, Italy, will offer an insight into MR-LINAC technological advances and potential applications in RT.

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ECR Today: The first EuroSafe Imaging Call for Action was launched in 2016 to guide the objectives of EuroSafe Imaging. Now, a new version, the EuroSafe Imaging Call for Action 2018, has been launched.

Guy Frija: The first EuroSafe Imaging Call for Action happened shortly after the launch of the EuroSafe Imaging campaign area. During the years, we, at EuroSafe Imaging, have developed a wide range of different activities to support and strengthen medical radiation protection across Europe. This approach has proven successful and our experiences and feedback have shaped the way we see the right track. However, these experiences and new developments also make it clear that, as an international initiative, we can go a step further, and thus the EuroSafe Imaging Steering Committee decided to update the Call for Action to better reflect the current challenges ahead.

ECRT: The first Call for Action was a report plan to achieve EuroSafe Imaging’s objectives, whereas the EuroSafe Imaging Call for Action 2018 comprises actions. So what’s new? And what different?

GF: The general approach has been changed. The EuroSafe Imaging Call for Action is now intended to supporting the IAEA Call for Action on Medical Imaging and Radiation Protection. We are using the IAEA’s framework, the Medical Imaging and Radiation Protection in Europe (MIRPE) framework, as a starting point to adapt and adjust the EuroSafe Imaging Call for Action to our specific needs.

ECRT: What does research play a key role in the Call for Action?

ECRT: Why is it important to collaborate with research institutions to support the development of the Call for Action?

GF: The Call for Action launched in its aim to include the actions to collaborate with research institutions and to develop a strategic research agenda for medical radiation protection. We want to make sure that the Call for Action is fully achieved with the establishment of the European Alliance for Medical Radiation Protection Research (EAMRARE) and the publication of the first strategic research agenda in 2019. The new Call for Action and goes much further. We will support research in advanced topics of radiation protection, such as artificial intelligence and image interpretation and, in particular, we are developing a new working group to focus on the protection of children from radiation, as more guidelines and support have been updated and aligned. The new Call for Action is now focused on the clinical perspective of medical imaging and radiation protection and, in general, is more concrete.

GF: In particular, the concept of clinical diagnostic reference levels is now reflected in the Call for Action, which we strongly advocate and promote. We also support the European Commission project EUCLID, which develops clinical diagnostic reference levels for European countries. Moreover, we are promoting the development of the Clinical Decision Support System (CDSS) and the harmonisation of exposure indicators.

ECRT: What other actions will EuroSafe Imaging focus on in the coming year?

GF: These coming years we plan to focus on the protection of children from radiation, including the development of the CDSS and the establishment of key reference levels.

ECRT: The new Basic Safety Standards (BSS) already took effect on 1 July 2020. How does EuroSafe Imaging support the implementation of the new BSS?

GF: We are clearly supporting the implementation of the BSS by providing guidance and tools to imaging department staff to help them comply with the directive. In particular, we are developing implementation guides and preparing a toolkit for work on the establishment of clinical diagnostic reference levels for paediatrics.

ECRT: What does the implementation of the new Basic Safety Standards mean for imaging departments and the protection of patients and staff?

GF: We are closely supporting the implementation of the BSS by providing guidance and tools to imaging department staff to help them comply with the directive. The new BSS bring a lot of benefits and possible risks for imaging departments and the protection of patients and staff. We are also disseminating the ESR Guide in Europe, a clinical decision support system, and have just launched a new working group at the congress to support dissemination of the ESR Guide. In addition, various ESR educational activities are underway like the Tips & Tricks material published on our website and the webinars we are co-organising with the IAEA Radiation Protection webinars.

ECRT: What opportunities does the next year hold for EuroSafe Imaging?

GF: We wish you the best for all endeavours and thank you for the interview.

Visit www.esrisafeimaging.org for more information.

EUROSAFE IMAGING CALL FOR ACTION 2018

1. Develop guidelines and implementation policies, and disseminate a Clinical Decision Support System (CDSS) for adults and children
2. Develop clinical diagnostic reference levels (DRLs) for adults and children
3. Develop image quality assessment based on clinical indications
4. Promote dose management systems to establish DRLs at local level and beyond
5. Develop performance indicators for radiation protection management
6. Implement a clinical audit tool for imaging to improve the quality of patient care
7. Radiation protection of children: develop guidance for good and safe use of imaging, and for effective communication
8. Establish a dialogue with industry regarding improvement of radiological equipment, the use of up-to-date equipment (e.g. Dose Management Systems) and the harmonisation of exposure indicators
9. Strengthen the EuroSafe Imaging Stars network of imaging centres that everybody practice best in radiation protection
10. Organise radiation protection training courses and develop e-learning material to promote safety culture and raise awareness on radiation protection
11. Support research in advanced topics of radiation protection, e.g. artificial intelligence, as well as facilitate the dissemination and translation of this research into clinical practice
12. Improve information to and communication with patients about radiological procedures, related benefits and possible risks
13. Engage with stakeholders and collaborate with related initiatives and regulatory authorities in Europe and beyond to contribute to a global safety culture in medical imaging
This morning ESR leadership will meet with Leaders of African Radiology Societies.

The meeting was organised ahead of ESR Meets Africa, scheduled to be a highlight of next year’s ECR.

This is the first time so many African representatives have met at the congress and the meeting promises to be a fruitful and energetic occasion.

Attendees will share knowledge and discuss ways to improve collaboration in the field of radiology between Europe and Africa.

In particular, discussions will focus on improving the delivery of radiological healthcare throughout the African continent.

The meeting will mark the beginning of closer relations and cooperation between European and African radiologists.
Failure to diagnose abdominal bleeds means bad outcome in most cases

In vascular abdominal emergencies, patient status can degenerate quickly, so time is of the essence. CT is pivotal for fast and appropriate triage of patients and selection of the best treatment strategy. But what if the really important signs and symptoms are small and hidden? New technologies are helping to provide the answers.

Figure 1: Ruptured abdominal aortic aneurysm before and after stentgraft implantation. Provided by Dr. Krzysztof Pyra.

Figure 2: Ruptured abdominal aortic aneurysm: classical surgery vs percutaneous stentgraft implantation under fluoroscopy guidance. Provided by Dr. Krzysztof Pyra.

Conversely, cases of acute bleeding may be missed because the rate of bleeding is low or the bleeding has stopped, resulting in perceptive errors whereby small amounts of iodine are missed. Radiologists should be aware of the differentials and check for bleeding as opposed to just inflammation or distention. Furthermore, hyperdense content inside bowel loops might mask acute blood clots, he warned.

"Detecting bleeding is difficult within the bowel due to the radiological signs associated with presence of food. DECT can help to determine if the hyperdense content is due to iodine, calcium or other types of material," Sinitsyn said.

At today’s session, speakers will discuss the shift in diagnostic approach toward ultrasound and CT, the latter noted for speedy coverage of large anatomical areas, and reliable results are relatively independent of operator and patient preparation.

ECR delegates will hear how suggestions made by radiologists carry considerable implications for patient management. Dr. Krzysztof Pyra, consultant radiologist in the department of interventional radiology and neuroradiology at the University Hospital of Lublin, Poland today will address which patients need consultation with an interventional radiologist to determine their suitability for minimally invasive procedures.

When considering repair options for abdominal vascular emergencies, each case requires a tailored approach, with the patient’s overall health taken into consideration, along with the specific often life-threatening injury.

In his presentation today, Pyra will cover the most frequent findings and their different treatment options. Traumatic arterial injuries often present in CT as contrast blush areas of high-density. In the majority of cases, transvascular embolisation of the injured vessel may be the method of choice, and is superior to the classic surgical approach.

He thinks retroperitoneal haematoma adjacent to an abdominal aortic aneurysm is the most common imaging finding indicative of aneurysm rupture. Endovascular aneurysm repair (EVAR) has become an established technique for the treatment of many infrarenal aortic aneurysms. Less invasive than open surgical repair, EVAR is associated with better outcomes, according to Pyra (see Figures 1 and 2).

The interventional radiologist’s remit also rests on the repair of...

continued on page 10

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Time is brain: optimising the management of acute ischaemic stroke

In today's State of the Art Symposium on interventional treatment of stroke, ECR delegates will get the chance to acquaint themselves with challenges in the treatment of acute ischaemic stroke and to learn about current imaging modalities and the important role of endovascular techniques in the management of affected patients.

"Endovascular strategies for toddlers stroke cases mean in improved outcomes. Recent studies have shown the great benefits of endovascular therapy in these patients, comparable with the treatment effect in patients who have an intracranial occlusion without severe carotid stenosis. These current guidelines recommend that anyone involved in the management of patients with acute stroke should be aware of the benefits of endovascular therapy in these patients and the role of anticoagulation in the acute phase in the treatment of tandem lesions," said van Zwam. However, as there is yet no evidence for optimal management, no clear guidelines for the management of the extracranial carotid pathology exist.

The use of acute carotid imaging and interventional techniques to optimise the safety and efficacy of endovascular treatment beyond tandem lesions has been extensively discussed in recent years. However, until now, data on the potential efficacy of endovascular treatment in these specific patient populations have been patchy. In this session, we will discuss the evidence for the use of endovascular treatment in patients with tandem carotid occlusions, focusing on whether the optimal approach is primary stenting of the extracranial carotid artery or tandem stenting of both extracranial and intracranial arteries. In this context, we will also discuss the potential role of anticoagulant therapy in these patients.

The session will be opened by Prof. Thomas Vilela (University Hospital Salamanca, Spain), who will provide an overview of the latest developments in endovascular treatment for tandem lesions. Following this, Dr. Wim van Zwam (Academic Medical Center, Amsterdam, the Netherlands) will present the latest evidence on the use of endovascular treatment in tandem lesions and discuss the potential benefits of this approach. Finally, Dr. Juan M. Macho (Hospital Clinic del Barcelon, Spain) will provide a comprehensive review of the current evidence regarding the role of anticoagulation in the management of tandem carotid occlusions and discuss the potential benefits of this approach.

State of the Art Symposium
Sunday, March 4, 08:30–10:00, Room F1

5A Pathological and technical approaches of stroke: a game changer

Chairperson’s introduction
P. Vila Alverà, Barcelona, Spain
Strokes, endovascular treatment: tandem lesions and acute phase steering
V. van der Zijden, Antwerp, Belgium
Strokes, endovascular treatment: beyond proximal occlusion, tandem lesions, and re-endovascular treatment
M. Macho, Barcelona, Spain
Case-Based Diagnosis Training 2018: normal variant or disease?

For the fifth time in a row the SCB will draw to a close with the Case-Based Diagnosis Training on Sunday afternoon. No matter whether you are an ambitious researcher or a general radiologist, employed in a hospital or a diagnostic centre, at the beginning of your career or already have decades of experience behind you, we feel sure you will find something for you in this session. This will be confirmed with different cases from in radiological subdisciplines. Just as in daily practice you will be provided with clinical symptoms and corresponding diagnostic images. Then you will get ample time to think over with the questions to multiple questions. Each case will be analysed by one of our revisited subdisciplines and you will be able to confirm your diagnosis. Even if this does not help you decide between different diagnostic solutions by going for the most profitable option. Some may be so common that experienced practitioners require only a subtle look to make the correct diagnosis, others will quite fairly test your intuition or a mystery that can be solved with the right approach. Sunday afternoon is designated for collage overviews with a rich collection of cases that will again organized an interlude between the tight blocks of case presentations for variety. With the help of these vignettes, radiologists from all over the world have seen us. Dr. Wolfgang Drahanowsky from Vienna will talk in his usual entertaining style. They have chosen normal variants as the topic of choice. Some are easy radiolog- ics such as persistent left upper oesophageal vein or with the left side (Figures 1a and 1b). Others are less easy recognizable unless you have encountered them before, such as an aortic gland in the heart or an aneurysm in the vessel, dedicated algorithms are used to detect these findings. You will understand what happens when the process is used as a routine and start to head in the wrong direc- tion. The aim of this task is to familiarize you with an array of normal variants which should be considered when reviewing imaging data, enabling quantification of disease extent and prediction of personal disease risk and also what to expect when you return home.

Sunday, March 4, 14:00–15:30, Room Ei CB Case-Based Diagnosis Training – Interlude Normal variant or disease?

Moderator: K.H. Friedrich-Veit, ViennaAT

Heid and talk

Friedrich-Veit, ViennaAT

Case

Friedrich-Veit, ViennaAT

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Friedrich-Veit, ViennaAT

Stiftl, ViennaAT

Casier, M.H. Turboget, GrazAT

Optimising pre-surgical fMRI language mapping for personalised therapy planning

Intrinsic connectivity networks of the brain may be the key to fine tune paragnids.

The primary role of machine learning is to find the means for the efficient rendering of such patterns. Algorithms will have to be able to detect and classify clinical patterns, and to make decisions based on their observations. As we become able to detect and classify clinical patterns, the analysis of intrinsic connectivity networks may provide the answer to such questions, and to make decisions based on their observations. The aim of this task is to familiarize you with the correspondence between such data and the relevant fMRI activa- tion patterns. ICN_Atlas is available at https://openfMRI.org/atlas. The primary role of machine learning will not be automatic, but improving patient care by discovering new markers pattern, and resolving those patterns use- ful in novel research directions.

Figures 1A and 1B: transverse and coronal contrast enhanced chest CT showing persistent left upper oesophageal vein and absence of right upper oesophageal vein in a 44-year-old man with follow-up after partial oesophagectomy.
Volumetric histogram-based analysis of SUV and ADC values for the assessment of paediatric sarcoma at staging

In the last few years there have been many studies which have evaluated the diagnostic performance of PET/MRI in oncological imaging, including paediatric oncological imaging. This very hybrid innovative technique allows the simultaneous acquisition of metabolic and anatomic information with a high soft tissue contrast resolution and a low dose radiation exposure. Another benefit is the option of adding various diagnostic specific sequences like diffusion weighted imaging (DWI), which can provide information about the cellularity of neoplastic lesions.

Musculoskeletal tumours are a rare and diverse group therefore, a workflow of tests and treatment options like conditions may be encountered when patients undergo clinical or radiological examination. Because of the advent of new chemotherapeutic drugs and treatment regimens, and as a result of advances in staging and monitoring tools, an accurate and early assessment of patients with musculoskeletal tumours is important for the best patient outcome.

Although these results need to be confirmed on a larger population, they already suggest the necessity for a multifaceted approach for their non-surgical treatment. It is hoped that the present study will be helpful in understanding the complex heterogeneity of tumours and evaluates the correlation between regions-of-interest SUV and ADC values for the assessment of paediatric sarcomas at staging.

Clinical Corner

New treatment strategies group of patients with musculoskeletal tumours

In today's Special Focus Session, experts will provide an update on imaging modalities, treatment strategies and therapy monitoring in patients with musculoskeletal tumours, aiming to raise awareness of how multimodality imaging can influence therapeutic balancing between tumour control and quality of life.

By ALESSIA VARIOTTI

By KATHARINA MIEDZINSKA

Ewing sarcoma, previous resections of the right femur, and lumbar spine. PET/CT scan. Note increased FDG uptake in left leg and foot secondary to metastasis in the left humerus. On PET/CT the metastasis in the left humerus is FDG positive, but the metastasis in the left femur is FDG negative and only seen on the corresponding non-enhanced CT. The metastasis in the left femur is visible on the PET/CT scan. Increased FDG uptake is left ing and foot secondary to multiple metastases. Presented for final evaluation at the presentation of Dr. Michiel van de Sande, from the department of Orthopaedic Surgery at the Leiden University Medical Center, who plans to familiarise ECR delegates with the advent of new chemotherapeutic modality imaging in the treatment of bone sarcoma.

During the Focus Session, van de Sande plans to familiarise ECR delegates with the advent of new chemotherapeutic concepts. “The combination of diagnostic tests in combination with MR and PET/CT allows the inclusion of many biological factors into the model and may predict the tumour response, mortality and survival chances and quality of life of the patient during the follow-up and changing treatments. The advantage of an FDG PET/CT scan and the inclusion of surgical and metastatic tumours in the treatment regimen makes this model unique and highly essential for the future.”

The model considers treatment modalities, including applied chemotherapy and achieved surgical margins, and predicts overall survival as well as the probability of local recurrence at three, five and seven years.

At the end, an app was developed to assist in shared decision-making in clinical practice.

« Panel discussion: Increasing quality of life in sarcoma patients

« New treatment paradigms in orthopaedic oncology

« Multi-modality imaging in training and monitoring

Sunday, March 4, 08:30–10:00, Room N

S4.4 New treatment for musculoskeletal tumours

Chairperson’s introduction: What is changing?

L. Löwen (Leiden)

New treatment paradigms in orthopaedic oncology

M. A. Weber (Homburg)

Multi-modality imaging in training and monitoring of soft tissue sarcoma

M. A. Weber (Homburg)

Panel discussion: Increasing quality of life in sarcoma patients

Who is benefited which imaging changes for which patients from an imaging perspective and how to support them?

Sunday, March 4, 10:30–12:00, Sky High Stage
Evaluation of burnout syndrome in radiographers

BY MAGALY ZAPPA

Does MR imaging help to evaluate intestinal fibrosis? Results with a murine model of radiation-induced colitis

BY LUI'S PEDRO VIEIRA RIBEIRO

Evaluation of burnout syndrome in radiographers

As radiographers face a wide range of psychosocial stress factors in hospital environments, they are at a high risk of developing burnout syndrome. Burnout is defined as a psychological syndrome of chronic exhaustion and cynicism, and inefficacy and is experienced as a prolonged response to chronic stressors in the workplace, which in turn may affect hospital outcomes such as the quality and safety of provided care. This issue is very important since radiographers are present at the first contact with the patient, especially in an emergency, where it is necessary to be fast, effective and efficient. The symptoms of burnout are usually multidimensional with several psychiatric, psychosomatic, somatic and social disorders. The main psychiatric symptoms are, in addition to chronic fatigue and continuous exhaustion, above all described as 'mental dysfunction'. This includes concentration and memory disturbances, a lack of drive and personality changes. Severe disturbances are anxiety and depressive disturbances, which can culminate in suicide. The development of addictions has also been associated with burnout. Common somatic symptoms are headaches, gastrointestinal disorders or cardiovascular disturbances. For radiographers, similar to other health professionals, being in the 'front line' of patient care can be even more stressful depending on the individual and the clinical context. The risk of burnout is influenced somewhat by the extent of the stress factors and deficits in personal resources, but mostly by social support systems and coping strategies. In our research, to assess the level of burnout, we used the Maastricht Burnout Inventory, introduced in 1981 (Maslach & Jackson), which is widely used in the diagnosis of this syndrome. It is a self-assessment questionnaire consisting of 22 items to evaluate emotional exhaustion, depersonalisation and reduced personal accomplishment. In the healthcare context, implementing measures to prevent burnout is extremely important. Burnout syndrome can be differentiated according to the preventive approach and levels of prevention. Preventive approaches need to be considered as both modifications in the work environment (prevention of circumstances) and also improvements in the individuals’ ability to cope with stress (behavioural preventive measures). According to the World Health Organization, the levels of prevention can be divided into primary preventive measures (avoidance/removal of factors that make the illness), secondary measures (early recognition-intervention of manifest disease), and tertiary measures (coping with the consequences of disease—rehabilitation and relapse prophylaxis). The concept for behavioural preventive measures presented in the literature focus on primary prevention and belong to the domain of psychology. A high number of radiographers experience occupational burnout. Most of them report as causes the pressure to complete patient lists and the fact that they can only spend such a short amount of time with each patient. The number of weekly working hours is also a major issue. This research is one more contribution to the knowledge about burnout syndrome among radiographers, especially because younger radiographers present with high levels of burnout. It is necessary to fight the causes of burnout in order to not compromise the healthcare service they provide. We would like to invite you to come to our session and to find out more about the lines of research in our department (e.g. we are expanding and applying this work to the radiotherapy and nuclear medicine fields), so please don’t miss our presentations at the Radiographers Sessions. Our department has several presentations within the radiographers programme, but this specific presentation entitled ‘Evaluation of burnout syndrome in radiographers’ will be held today in room K, and we will be very grateful if you could attend and make contributions. We hope to see you there!

Luís Pedro Vieira Ribeiro is Head of the Medical Imaging and Radiotherapy Department at the University of Algave, Portugal. He would like to thank his co-authors from the same department, V.R. Luiz, A.F.C.L. Abrantes, K.B. Azevedo, R.P.P. Almeida, S. Rodrigues, and N.F. Pinto.

Scientific Session: Radiographers
Sunday, March 4, 14:00–15:30, Room K
SS 1314 Professional issues in radiography

Moderators: S.O. Scherberg, Mannheim/DE; M. Mente, K.H. Wamsttett, London/UK
- Evaluation of burnout syndrome in radiographers
Artificial intelligence brings fresh clinical possibilities and sense of renewal to digital x-ray sector

Digital x-ray systems are going through a phase of renewed enthusiasm, with exciting new technologies such as artificial intelligence promising to reshape the way radiologists and radiographers interpret examinations in the years to come.

BY INGA STEVENS

Optimising radiation dose remains an ongoing area of concern, with continued discussion focusing on how to keep dose as low as reasonably achievable (ALARA) but interest in digital radiography (DR) and digital tomosynthesis is contributing to a wave of developments in the field, many of which can be seen in the exhibition halls during ECR 2018.

GE Healthcare is introducing Helix advanced image processing to complement its FlashPad HD digital detectors. The company is working on developing artificial intelligence algorithms for the product that will help radiographers to obtain better images. It is also developing an app that will enable radiologists to prioritise which studies to ready for flagging those that need a fast interpretation.

GE has included Helix in its high-end fixed DR system, Discovery XR66 HD 2.0 and its latest mobile x-ray device, Optima XNanana with FlashPad HD. Both Discovery XR66 HD and Optima XNanana are compatible with the firm’s x-ray quality application, which features repeat/reject analytics (RRA). RRA automatically mines data from a hospital's x-ray systems to ensure users can get the best image the first time and gather information about why images are rejected. "Key is oftentimes the patient’s first impression of a hospital. Just like first impressions with people, the first image taken helps set the path going forward," said Emmanuel Elue, product marketing director for Europe for GE Healthcare. "Today’s healthcare environment demands high-quality diagnostic images for accurate diagnosis. Helix focused on reinventing x-ray to be the most intuitive and technologically powerful imaging tool in order to deliver great diagnostic confidence." Also being promoted at ECR 2018 is the Discovery RF 180, a remote imaging system for research fluoroscopy and advanced applications. Clinicians can perform tomosynthesis, stitching, digital subtraction angiography, haematuric exams, and radiographic exams without additional equipment, leading to workflow improvements, the vendor noted.

Ziehm Imaging is displaying its complementary metal-oxide semi-conductor (CMOS) portfolio at ECR 2018, the 32 x 32 cm CMOS flat-panel detector for Vision RFD 1500. The vendor’s SmartDose comes with beam filtration technology that can lead to a reduction in skin entrance dose and a lower radiation dose. The Vision RFD 1500 CMOSflat detector also features the SmartDose. A 15.8 x 15.8 x 18.0 cm Field-of-view reportedly covers larger anatomical regions with the higher 32x32 voxel for better resolution without increasing dose levels. Also, the edge length of 10 x 10 cm provides an option for zoom-in or intraoperative imaging in cochlear implantations.

On the Shimadzu booth, visitors can explore the SureEngine FAST (fluorescopy assisted studies and display of injectable contract media parameters, allowing providers to track imaging data for different modalities, ensuring radiology departments can take a holistic view, equipping them with expanded tools and data to report more confidently, and improving imaging practices, quality and patient safety, according to the company. The vendor-neutral radiation dose index monitoring software enables multi-modality enterprise-wide radiation dose data aggregation and reporting, and is said to minimise a hospital IT department’s efforts and allow healthcare professionals to identify malpractices, thus promoting implementation of training programmes and optimisation policies.

By managing radiation dose effectively, many can adopt to new technologies and meet evolving regulatory standards and operations concepts. Siemens Healthineers is presenting the Mammatom Revolution, its latest digital mammography platform that supports breast tomosynthesis with an average of 1.4 x rays per breast and HD breast tomosynthesis. The system also provides automated breast density measurement, which will be even easier to transport and position in comparison to conventional units. "Our new carbon nanotube technology to deliver a lighter, more motorised system that will be even easier to transport and position in comparison to conventional units," explains Cyril Aschenbrenner, business director of CT & X-Ray Solutions. The vendor is also showing the latest version of DRX-Evolution Flex, which offers software and hardware enhancements such as flexibility in high-ceiling rooms via an extended tube column, a high-performance generator, an optional table to accommodate patients up to 352 pounds (160 Kg), LED lighting for enhanced functionality and aesthetics, and forward-looking design specifications to embrace new advanced imaging applications as they become available, he added.

Samsung is displaying its full product portfolio, including two ceiling-mounted systems, OEC5500 and GC70, as well as highlight its premium portable CMX X-ray. According to a company statement, the CMX5’s enhanced mobility and streamlined workflow enable users to experience a new level of efficiency along with exceptional image quality, and low-dose technology has been adapted for improving their imaging experience.

At the Hologic booth, you can learn about the Fluorence InSight FD. Mini C-Arm, which reportedly features several improvements, including different imaging options; more flexible storage and transport, and an enhanced interface. It provides high-resolution and low-dose rate modes, and has a 4.5-inch HD touchscreen. The low-dose rate mode allows user to reduce dose rates by up to 50% compared to Auto Mode, while continuing to deliver clinically equivalent images, and the system also offers MegaView Image in Review Mode, which gives the option to display and view 59 larger images, the company stated.

Carestream is demonstrating its latest workstation that will be even easier to transport and position in comparison to conventional units. "Our new carbon nanotube technology to deliver a lighter, more motorised system that will be even easier to transport and position in comparison to conventional units," explains Cyril Aschenbrenner, business director of CT & X-Ray Solutions. The vendor is also showing the latest version of DRX-Evolution Flex, which offers software and hardware enhancements such as flexibility in high-ceiling rooms via an extended tube column, a high-performance generator, an optional table to accommodate patients up to 352 pounds (160 Kg), LED lighting for enhanced functionality and aesthetics, and forward-looking design specifications to embrace new advanced imaging applications as they become available, he added.

Technical Exhibition Opening Hours
Sunday, March 4 10:00-16:00
East meets West on the path to x-ray upgrade

It has been a challenging time in the general radiology world: with stagnating healthcare spending in Western Europe and the US, combined with a price erosion caused by the influx of lower-price products from the Asian market, there has been little to shout about. But, with global economic forecasts improving for 2018, here are some of the geographical opportunities that could shape this upward trend for general radiography.

### Western European trends

The market performance for medical imaging technology in Western Europe has been somewhat subdued, with a number of countries reporting an annual GDP growth and restrictions on healthcare spending having hit the market in recent years. However, recent market studies have shown a return to growth for most industries over the past five years, with markets in Spain and Portugal seeing a return to growth in the majority of the country. Central and Eastern Europe are the areas with the most growth, as the population is expected to rise by 2060. This expected growth in population is driving demand for the private sector. Although most of the market is still serviced by analogue or computed radiography (DR) systems, a number of digital radiography (DRC) systems have been introduced into the market in recent years.

### Impact of efficiency gains

At healthcare institutions, the transition from older technology such as CR or analogue to DR technology and digital systems is driving efficiency gains. The increased efficiency can often result in a reduction in the number of older systems, meaning a decrease in overall installed base volume. The most significant gains are reported in the market for digital systems.

### Increase in sales factor

Central and Eastern Europe are a region that is expected to grow significantly over the next five years. In particular, there is an expanding middle-class population and increased demand for healthcare services in the private sector. Although most of the market is still serviced by analogue or computed radiography (CR) systems, a number of digital radiography (DR) systems have been introduced into the market in recent years.

### Technology transition

- Implementation of government initiatives and legislative changes that prioritize the use of digital systems in the market.

The transition to digital systems is expected to continue, with systems that are highly efficient and easy to use becoming the norm. This trend is likely to continue in the near future, as the majority of the installed base of analogue systems is expected to continue to decline.

### CoSTREAM project investigates the link between stroke and Alzheimer’s disease

Stroke and Alzheimer’s disease are the most common causes of death and disability in the world. The CoSTREAM project is a European Union-funded initiative with the goal of understanding the underlying causes of the co-occurrence of these two diseases.

### Conclusions

The CoSTREAM project will provide valuable insights into the development of effective therapies for stroke and Alzheimer’s disease, as well as the development of new diagnostic tools for early detection and monitoring of these diseases.

### References


### Further reading

ESR takes initiatives to shape eHealth and medical education in EU policies

The ESR Department of European and International Affairs has been increasing the pace of its activities on digital health and the development of new educational and training programs. In 2016, the ESR Department started to contribute to the European Commission’s eHealth Thematic Network led by the ESR and supported by the European Society of Radiology (ESR) and the European Commission. This network is focused on the development of new educational and training programs in digital health and the provision of guidance and support to stakeholders in the field.

The ESR Department has also been involved in the development of the European Health Policy Platforms (EHPP) on radiological protection and quality assurance. The EHPPs are aimed at fostering inter-stakeholder dialogue and collaboration on EU health policy issues.

The ESR Department has also been active in the development of new educational and training programs in digital health. For example, the ESR has developed a series of e-learning modules on digital health topics, including radiological protection and quality assurance.

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Distal ureteral stone or pelvic phlebolith: is deep learning the answer?

Artificial intelligence (AI) and deep learning are expected to transform radiologists’ workflows over the next few decades. In Sweden several deep learning projects have been launched in the last couple of years in medical imaging.

Image: Prostate MRI.

BY MATS LIDÉN

Four examples of pelvic calcifications from axial abdominal CT images. The differentiation between pelvic phlebolith and distal ureteral stone is difficult when only local features are used.

Mats Lidén, MD, PhD, is a professor of radiology at Örebro University Hospital, Sweden. His special interest is artificial intelligence and deep learning.

Scienceday Session: Imaging Informatics
Sunday, March 4, 13:00-14:00, Room L 1
Deep Learning
Moderators: J. Fernandez-Bayó; Sabadell/ES
M. Lidén, L. Almqvist; Örebro/SE, M. Längkvist, A. Loutfi, P. Thunberg; T. Nordenstam, M. Lärsäter; N.N.

» Deep learning systems: A perspective on the development of deep learning systems in medical imaging

Mats Lidén, MD, PhD, is a professor of radiology at Örebro University Hospital, Sweden. His special interest is artificial intelligence and deep learning.

Deep learning systems: A perspective on the development of deep learning systems in medical imaging

The access to high-resolution 3D CT data enables for more accurate modeling but also brings a wide range of new challenges to medical imaging.

The main lesson learned from the study presented in the Scientific Session is that we need the cooperation between computer science and radiology to unlock the potential of deep learning, and that we should try to include as many radiologists as possible in the scientific projects to facilitate the adoption of AI in radiology.

Mats Lidén, MD, PhD, is a professor of radiology at the Radiology Department of the Faculty of Medicine and Health at Örebro University and Örebro University Hospital, Sweden. His special interest is artificial intelligence and deep learning.

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ECRT: Being such a regular event, what do you recall from that visit?
LD: Yes, I have been to all ECRs since the beginning and I remember that, in 1991, we came by car to Vienna. We arrived on the day before the congress and left after the very last session. A full immersion into the congress! I remember that everything was within the Automatic Centre: one was the ‘Passio secondum Matthaeum’ by Johann Sebastian Bach, and the other was a concert by pianist Katrina Labatuce and violinist Vitoria Mullera.

ECRT: Like the ECR, you have also come a long way and are now the incoming ESR President. Could you tell us about your experiences in radiology?
LD: I have shared my ideas and experiences with clinical colleagues. Each year, we will deal with patients and their daily clinical practice. Next year we will have to see how these have to be a surprise and can be enjoyed. The reciprocal cooperation between ESR and ECR meets partners during the last year and will continue. The future for ECR and Africa is bright, and we will continue to work together to improve radiology on the whole continent and those of other societies from all over the world. As regards Vienna, I had the chance to visit some of its most beautiful places: the Belvedere and its Klimt exhibition are my favourites. But what I especially remember are two concerts at the Musikverein: one was the ‘Passio secondum Matthaeum’ by Johann Sebastian Bach, and the other was a concert by pianist Katrina Labatuce and violinist Vitoria Mullera.

ECRT: Collaboration with other specialties and partner disciplines is a major aim for the ESR, as reflected in the growing number of joint sessions at recent ECRs. Which collaborations are planned for ECR 2019?
LD: One of the most popular and interesting sessions at ECR are the multidisciplinary sessions, in which radiologists and clinicians, together, discuss their diagnostic and therapeutic approaches to patients with a specific pathologic condition. Each team comes from the same hospital so that the discussions among them are the same which they would have during their daily clinical practice. Next year we will deal with patients affected by foot complications from diabetes, those with thyroid nodules and those with pulmonary cancer. The impact of the work of the radiologist is maximised when there is close cooperation with clinical colleagues. Each year, ECR brings to the attention of its attendees three clinical situations in which this can be seen on both the national and international levels. As ESR meets partners during the past years, but we have seen that the number of ESR Associate Members from Africa is growing and we believe that this invitation will be a chance to increase our knowledge about radiology on the whole continent and an opportunity to meet colleagues from countries that we still do not know. The session will discuss problems and strengths of our discipline in eastern, western and northern Africa and will underline the reciprocal cooperation between European and African radiology. It must be remembered that all specialties will see some ‘inter- folder’ showing non-radiological aspects of the invited countries: these have to be a surprise and cannot be disclosed.

As incoming ESR president, Prof. Lorenzo E. Derchi, Head of the Department of Radiology at the University of Genoa, will preside over ECR 2019.

Incoming ESR President Lorenzo Derchi looks forward to celebrating an ECR milestone in 2019

As has been our tradition for a few years now on the final day of our congress, we already look ahead to next year’s ECR. We therefore spoke with Lorenzo E. Derchi, from Genoa, Italy who, as incoming ESR President, will preside over ECR 2019. He told us about his plans and ideas for the next European Congress of Radiology.

ECRT: Professor Derchi, next year’s European Congress of Radiology will be the 25th to be held in Vienna. Are there any specific celebrations planned that you can already share with us?
LD: As incoming ESR president, Prof. Lorenzo E. Derchi, Head of the Department of Radiology at the University of Genoa, will preside over ECR 2019.

ECRT: The European Society of Thoracic Imaging turns 25 this year!
LD: As incoming ESR president, Prof. Lorenzo E. Derchi, Head of the Department of Radiology at the University of Genoa, will preside over ECR 2019.
The ESR European Training Curricula (ETC)

The ESR prides itself in keeping up to date with radiological developments especially in education. In reference to this, at ECR this year we are happy to announce the online publication of the newly revised and updated ESR European Training Curriculum, Level I–II and Level III (specialisation).

Further to this, we are also pleased to publicise that many of our institutional member societies are taking it upon themselves to translate the main curriculum, Level I–II, into their native language and are adopting the ETC as part of their national training programme, if not completely integrating it. The European Training Curriculum already exists in Spanish, Bosnian and Russian. Latvia and Lithuania are currently in the process of translating the document.

Keep your eyes peeled on the ESR website www.myESR.org/TrainingCurriculum for more updates!

Anna L. Valkova, Specialist Radiologist

For a quarter of a century, the European Society of Radiology (ESR) has been the main forum for the European radiology community (Read ESR). Each year, ESR Annual meetings have been the main stage for the presentation of the latest results of work being continuously on new ideas and developments in the field of radiology for a quarter of a century. The ESR Annual meeting has been the main platform for the presentation of the latest results of work being continuously on new developments in the field of radiology for a quarter of a century.

The ESR is a leading European organisation representing radiologists and medical physicists throughout Europe and the world. It promotes the highest possible standard of patient care and education in radiology and medical physics. It also encourages the development of radiology in Europe, and contributes to the advancement of knowledge in these fields.

For the ESR, the annual meeting is a chance to showcase the latest research and developments in the field of radiology, to exchange knowledge and ideas, and to promote collaboration among radiologists and medical physicists across Europe.

At the ESR Annual meeting, presentations, workshops, and exhibitions are held to share the latest findings and to discuss the future of radiology. The meeting is also a chance for members to network and to form collaborations for future joint projects.

The ESR Annual meeting is open to all radiologists and medical physicists, and is a great opportunity to learn from and network with colleagues from across Europe.

We look forward to seeing you at the ESR Annual meeting in 2023!
The European Society of Breast Imaging (EUSOBI) aims to provide well-tailored support in the field of breast imaging, helping to identify and manage breast lesions and minimising morbidity and mortality associated with breast cancer. We oppose legislative and regulatory initiatives that contribute to the under-representation of women in breast cancer screening programmes.

The aim of our organisation is to promote breast cancer awareness and education in clinical practice, to establish and maintain a robust international network of breast radiologists, and to promote the highest standards of breast imaging.

EUSOBI's members are engaged in the field of breast imaging and wish to establish a resource centre for breast radiologists and friends.

The organisation aims to provide a platform for breast radiologists and friends to participate in the development and support of breast imaging programmes.

EUSOBI and its members are committed to providing breast radiologists and friends with a platform to discuss and exchange ideas on breast imaging, to help them improve their clinical skills and to support their professional development.

Workforce constraints, advent of AI and challenges of Brexit: RCR’s key concerns in 2018

The Royal College of Radiologists (RCR) has published its annual report for 2017-18, which outlines the key concerns facing the radiology workforce in the UK.

The report highlights the challenges faced by the radiology workforce, including the need for workforce planning, financial sustainability and the development of artificial intelligence (AI).

The report also highlights the importance of education and training for the radiology workforce, with a focus on the development of AI and its impact on the workforce.

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The report concludes that the UK’s radiology workforce is facing significant challenges, including workforce shortages, financial sustainability and the development of AI.
Revisited radiology residency training programme in France: new design, new training methods

BY ALAIN LUCIANI AND LOUIS BOYER

The French radiology committee has initiated a renewed radiology residency programme. This new training programme is a key role for the radiological societies and especially the French Society of Radiology.

Special Exhibition: Martha Jungwirth

BY UTUO SEHOL AND MUSTAFA SECEL

Martha Jungwirth, Composition, 1966, 1010 Vienna, Albertinaplatz 1

The Albertina Museum, Vienna, on loan from the Artothek des Bundes © Bildrecht, Vienna, 2018

#ECRT2018

ECR TODAY | SUNDAY, MARCH 4, 2018
WHAT’S ON TODAY IN VIENNA?

SUNDAY, MARCH 4, 2018

THEATRE & DANCE

Hotel Strindberg
By Simon Stone based on August Strindberg’s works
AKADEMIETHEATER | 17:30
1030 Vienna, Lisztstraße 1
Phone: +43 1 51444 4145
www.burgtheater.at

Radetzkymarsch
Based on Joseph Roth’s novel
BURGTHEATER | 19:00
1010 Vienna, Universitätsring 2
Phone: +43 1 51444 4145
www.burgtheater.at

Terror
By Ferdinand von Schinck
KAMMERSPIELE DER JOSEFSTADT | 15:00 + 19:30
1010 Vienna, Rotenturmstraße 20
Phone: +43 1 42 700 300
www.josefstadt.org

Professor Bernhardi
By Arthur Schnitzler
THEATER IN DER JOSEFSTADT | 15:00 + 19:30
1080 Vienna, Josefstadter Straße 26
Phone: +43 1 42 700 300
www.josefstadt.org

Die Zehn Gebote
Based on the films by Krzysztof Kieślowski
VOLKSTHEATER | 15:00
1070 Vienna, Arthur-Schnitzler-Platz 1
Phone: +43 1 52111-0
www.volkstheater.at

CONCERTS & SOUNDS

Wiener KammerOrchester
Conductor Joji Hattori
Wolfgang Klenzer, clarinet
E. Elgar: Dream Children op. 43; W.A. Mozart: Concerto for clarinet and orchestra a major K 622; F. Schubert: Symphony No. 2 b major D 125
KONZERTHAUS | 10:30 + 15:30
1010 Vienna, Lothringerstraße 20
www.konzerthaus.at

Wagner Society Orchestra of the Keio University Tokyo
Conductor Masahiko Okochi
P.I. Tchaikovsky: Capriccio italien a major op. 45; H. Ohguri: Fantasia Osaka; J. Brahms: Quartet for piano, violin, viola and violoncello No. 1 g minor, op. 25
MUSIKVEREIN | 19:30
1010 Vienna, Bösendorferstraße 20
www.musikverein.at

Jason Miles Quintet
feat. Theo Croker (US)
PORGY & BESS (JAZZ) | 20:30
1010 Vienna, Riemergasse 11
www.porgy.at

OPERA & MUSICAL

Pelléas et Mélisande
By Claude Debussy
Conductor Thomas Guggeis
Directed by Thomas Jonigk
KAMMEROPERA | 19:00
1010 Vienna, Fleischmarkt 24
www.theater-wien.at

Der Opernball
Operetta by Richard Heuberger
VOLKSOPER | 15:30
1080 Vienna, Währingerstraße 78
www.volksoper.at

Arildante
By Georg Friedrich Händel
Conductor William Christie
With Sarah Connolly, Chen Reiss, Hila Fahima, Christophe Dumaux, Rainer Trost, Wilhelm Schwinghammer
WIENER STAATSOPER | 17:30
1010 Vienna, Opernring 2
www.wiener-staatsoper.at

I Am From Austria
Musical with songs by Rainhard Fendrich
RAIMUNDTHEATER | 16:30
1060 Vienna, Wallgasse 18-20
www.musicalvienna.at

Tanz der Vampire
Musical by Michael Kunze and Jim Steinman
RONACHER | 16:30
1010 Vienna, Seilerstätte 9
www.musicalvienna.at

Please note that all theatre performances are in German.
People & Places

DIVERSE

& UNITED
**ECR FACES**

French expat enjoys his first ECR

By Mélisande Rouger

Régis Ojeil, a French medicine student at Iuliu Hatieganu University of Medicine and Pharmacy in Cluj-Napoca, Romania, attended the ECR for the first time. He shared his expectations and thoughts on radiology ahead of the meeting.

“As a student, participating in such a renowned meeting will certainly teach me a lot. It’s also a major added value in my career path. I am happy I could profit from ECR’s reduced registration fees for students, without which I probably wouldn’t have been able to come to Vienna. I am really looking forward to visiting the city as well, as I have heard excellent things about it,” he said.

Ojeil, 24, was born in France but always had his eye set on the East. He grew up in Alsace, on the border with Germany. Soon, after receiving his A-level, he headed for Cluj in Romania, to the university there which has a large portion of international students. He has been studying medicine there for the past five years.

Studying abroad proved to be the right decision for him and he notably became secretary general and then president of Corporation Medicale Cluj, a French-speaking student association. In 2014 he also initiated the creation of the university’s handball team, a very popular sport in France.

Ojeil first heard about the ECR through student friends who attended last year. He planned to attend sessions which not only correspond to his level, but that can also help him improve his medical knowledge. “I am particularly looking forward to the Rising Stars sessions on neurologic and thoracic emergencies, and the Beauty of Basic Knowledge sessions, especially the presentations on patterns of acute trauma in the peripheral skeleton,” he said.

Although he still cannot decide between specialising in family medicine, internal medicine or cardiology, he is very keen on learning more about medical imaging. “As a second cycle student and soon-to-be resident, I think imaging and its cutting-edge technologies are very interesting because they are indispensable to medical practice, regardless of which specialty you have chosen,” he concluded.

ERRATUM

In the article on page 17 of the Wednesday edition of ECR Today, the ultrasound images of the cross section of the median nerve and the structure of a neuroma visualised in a longitudinal view at 24 MHz were provided by Dr. Jan Veryser, Hospital AZ Zeno, Knokke-Heist, Belgium, and Canon Medical Systems. We apologise for the error.

For more information on the company’s products, go to the Canon Medical Systems booth in Hall X3.
The ESR was happy to meet the leadership of the Società Italiana di Radiologia Medica e Interventistica (SIRM) and looks forward to ESR meets Italy at ECR 2019. From left to right: Roberto Grassi (SIRM President-elect), Katrine Riklund (ESR Immediate Past-President), Andrea Giovanonni (SIRM, Director of editorial activities), Boris Bielajev (ESR 2nd Vice President), Lorenzo E. Derchi (ESR 1st Vice President), Carmelo Privitera (SIRM President), Paul M. Parizel (ESR BoD Chair), Massimo Midiri (SIRM, coordinator of international activities), Peter Baierl (ESR Executive Director).

Portugal is one of the guest countries at ECR 2018. Scientific highlights were interspersed with traditional Portuguese guitar performances. SPRMN President Prof. Filipe Caseiro Alves received a certificate from ESR President Prof. Bernd Hamm.


The Junior Image Interpretation Quiz again proved to be a highlight of the ECR. This year’s theme ‘Young radiologists in the landscape of artificial intelligence’ drew the crowds to Room A.

ESR Board of Directors Members met with International Society of Radiographers & Radiological Technologists (ISRRT) officials to discuss further ways of cooperation. Left to right: Lorenzo E. Derchi (ESR 1st Vice President), Fozy Peer (ISRRT President), Paul M. Parizel (ESR BoD Chair), Dimitris Katsifarakis (ISRRT CEO), Peter Baierl (ESR Executive Director).

The ESR International Forum took place yesterday at ECR 2018. Societies from outside Europe with whom the ESR has established formal relations, as well as non-European past ‘ESR meets’ countries convened to present their views on value-based radiology.