Since January 2020 Elsevier has created a COVID-19 resource centre with free information in English and Mandarin on the novel coronavirus COVID-19. The COVID-19 resource centre is hosted on Elsevier Connect, the company's public news and information website.

teaching. However, currently discussion opportunities and teaching around AI in training are limited.

Superior vena cava aneurysm: An unusual mediastinal mass

Authors: Wissam Fatma Zohra Chelha, Butoul Satea, Twana Shareef

Category: Chest/thoracic imaging
Purpose: Most vascular lesions in the mediastinum are aneurysms arising from the aorta and its branches, while intrathoracic systemic venous aneurysms are considered a rare entity. Therefore, reporting a rare case of superior vena cava (SVC) aneurysm will increase radiologists' awareness of this entity and consideration of it in the differentials of mediastinal vascular lesions.
Method and materials: We report a case of an incidental superior vena cava aneurysm in a 77-year-old female patient, who presented to the emergency department with cough.
The patient's demographics, history, clinical presentation and laboratory results were accessed using the hospital Cerner database. Images were reviewed through the picture archiving and communication system (PACS).
Results: Chest radiograph showed a right-sided anterior mediastinal mass. Further assessment with contrast-enhanced CT thorax revealed the presence of an isolated 6 x 6.2 x 4 cm saccular aneurysm arising from proximal SVC without intraluminal thrombosis. The patient was advised of observation and follow-up considering her general condition and associated comorbidities.
Conclusion: When mediastinal masses are found incidentally on routine imaging, vascular lesions, such as SVC aneurysms, are rarely considered as differential diagnosis. Advanced imaging can help in the diagnosis and recognition of complications. The general management consensus is that fusiform aneurysms can be treated conservatively, whereas saccular aneurysms may require prophylactic surgical removal in view of the possible risk of thrombus formation and pulmonary embolism. However, treatment should be individualised to the characteristics of the patient and the morphology of the vascular anomaly itself.

Radiographic approach to mediastinal abnormalities

Authors: Noor Badrawi, Priyank Gupta

Category: Chest/thoracic imaging
Purpose: The study aims to revisit radiological methods of localising mediastinal abnormalities by assessing and reviewing the anatomical lines and stripes seen on conventional chest radiographs with cross-sectional imaging and histopathological correlation.
Method and materials: In this retrospective study, we have reviewed our database of patients presenting with mediastinal abnormalities on conventional chest radiographs between June 2021 and December 2021 at Dubai Health Authority. Cases were collected and analysed, including the clinical presentation and radiographic findings, along with cross-sectional imaging and pathologic confirmation. Imaging data were retrieved from a picture archiving and communication system (PACS).
Results: Chest radiographs were the initial modality for diagnosis in all patients. A total of 12 cases were identified with full diagnostic work-up and definitive pathological diagnosis. Tissular components of the masses and their relationships with mediastinal structures were assessed by computed tomography (CT) or magnetic resonance imaging (MRI). Lesions were characterised and the diagnosis was confirmed by CT-guided fine-needle aspiration in most of the cases. Half of the patients (accounting for seven cases) had anterior mediastinal masses, three had middle mediastinal masses and two had posterior mediastinal masses.
Conclusion: Conventional radiographs play an important role in the initial diagnosis of many mediastinal abnormalities. Familiarity with the mediastinal reflections helps in further localisation of the mediastinal mass and helps in narrowing the differential diagnosis, guiding the clinicians in determining appropriate further imaging and management.

An assessment of the diagnostic and prognostic value of chest radiography in COVID-19 pneumonitis

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Category: Chest/thoracic imaging
Purpose: High mortality in COVID-19 infection is largely related to pneumonitis. Diagnosis is based on polymerase chain reaction (PCR) testing, which has many limitations including lengthy turnaround times. The chest radiography is a useful initial tool to diagnose it in a timely fashion. However, only a few studies have assessed its prognostic value.
We aim to analyse the diagnostic accuracy of chest X-ray (CXR) in COVID-19 and to assess if severity of COVID pneumonitis on CXR correlated with mortality.
Method and materials: A retrospective study of all inpatients aged $\geq$18 years with a confirmed diagnosis of COVID-19 during the first and second waves of the pandemic. Admission CXRs and inpatient computed tomography (CT) thorax scans were analysed. Statistical analysis was performed using the chi-squared test for independence.
Results: 999 COVID-19 patients were included in the study. Severity of COVID pneumonitis on CXR correlated with mortality when patients were grouped into the following categories: normal (n=161, mortality=42%), mild (n=220, mortality=33%), moderate (n=328, mortality=42%) and severe (n=290, mortality=58%) ($p<0.001$).
251 patients had both CT and CXRs. CT scans were superior in diagnosing COVID pneumonitis (63%) compared with CXR (47%) ($p<0.001$).
Conclusion: Our study showed a positive correlation between the severity of COVID pneumonitis on CXR and mortality, supporting the use of CXR in the emergency department to help rapidly identify and treat patients at high risk of death.

Tunnelled haemodialysis catheters in children: A retrospective study in a tertiary children's hospital in the UK

Authors: Nasim Tahir, Sarah Jamil, Amy Conroy

Category: Paediatric
Purpose: Haemodialysis is an essential adjunct in the management of established renal failure. This can be challenging in children given the relatively large size of the lines. The aim of our project was to evaluate tunnelled dialysis catheter insertion and outcomes at Leeds Children's Hospital, UK.
Method and materials: This was a retrospective study. All tunnelled paediatric haemodialysis lines inserted between 2010 and 2021 were identified. Each patient's radiology and clinical record was checked and data related to the line was extracted.
Results: During the study period July 2010 to December 2021 there were 105 tunnelled lines inserted in 71 patients. 47 patients had one line, 16 had two lines, 6 had three lines and 2 had four lines. There were 42 male patients and 30 female. The average weight at line insertion was 28.6 kg (range 7.5–75.8 kg). 68% of the lines were sited by interventional radiology. The commonest site of insertion was the right internal jugular vein. Nine patients currently have lines in situ. The reason for line removal in other patients was renal transplant (34), transition to peritoneal dialysis (14), infection (12), displacement (8), blockage (3), other causes (10) and unknown (15). A total of 39 (37%) lines were removed prematurely.
Conclusion: Tunnelled haemodialysis catheter insertion is challenging in children partly due to small patient size but also due to the relatively large size of the lines. A higher incidence of line changes should be anticipated.

To biopsy or not to biopsy: Identifying potential predictors of histologically benign microcalcification seen on screening mammography

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