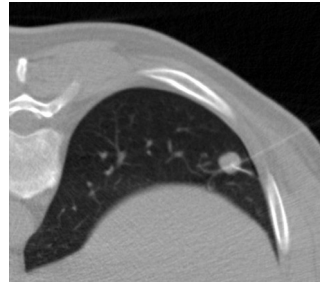


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The patients were assessed with respect to localization and puncture of the lesion, duration and complication rate of the procedure, conversion thoracotomy rate during VATS and pathologic results.

Results: Preoperative CT-guided wire implantation succeeded in all patients. The average CT-guided procedure time was 12 min (range 8-15 min) and no complication was noted. There was no conversion to thoracotomy needed in any patient. Histological assessment revealed metastases in 11 patients, non-small-cell lung cancer in 4 patients, interstitial fibrosis in 2 patients and a sarcoid nodule in 1 patient.

Conclusions: Percutaneous CT-fluoroscopy guided wire placement is a useful and safe technique for localizing nonpalpable pulmonary nodules during VATS resection.

P3662

Imaging techniques in the evaluation of solitary pulmonary nodules (SPNs)

Marta Dabrowska¹, Rafal Krenke¹, Piotr Korczynski¹, Marta Maskey-Warzechowska¹, Malgorzata Zukowska², Jolanta Kunikowska³, Wlodzimierz Kupis⁴, Ryszarda Chazan¹. ¹Department of Internal Medicine, Pneumology and Allergology, Medical University of Warsaw, Warsaw, Poland; ²Department of Radiology, Medical University of Warsaw, Warsaw, Poland; ³Department of Nuclear Medicine, Medical University of Warsaw, Warsaw, Poland; ⁴Department of Surgery, Institute of Tuberculosis and Lung Diseases, Warsaw, Poland

Despite new imaging techniques such as contrast enhanced computed tomography (CECT) or positron emission tomography with 18-fluorodeoxyglucose (FDG-PET/CT), non-invasive diagnosis of SPN etiology still remains a problem.

Aim: 1. to assess the incidence of malignancy in newly diagnosed SPNs

2. to evaluate utility of CECT and FDG-PET/CT in SPN diagnosis

Methods: 85 patients with newly diagnosed SPNs were observed on an ambulatory basis between 2008 and 2010.

The diagnosis of malignant etiology of SPNs was based on pathological examination.

The benign etiology was proved based on either:

1. pathological examination
2. lack of growth for at least 2 years or resolution in radiological follow-up
3. central/total calcification in CT

The result of FDG PET/CT was suggestive for benign etiology of SPN if uptake of FDG was like background (SUV < 1) and the result of CECT -if enhancement value was < 15HU.

Results: The SPN etiology was determined in 60 patients. 12 nodules (14%) were malignant. 48 nodules (56.5%) were benign. 17 patients are still under observation; 8 were lost to follow up.

FDG-PET/CT was performed in 32 patients. In 16 cases the result was negative, 12 had an increased FDG uptake, 4 were inconclusive. The sensitivity, specificity, positive (PPV) and negative predicative value (NPV) and diagnostic accuracy of FDG-PET/CT were 91%, 87%, 83%, 93% and 88%, respectively.

CECT was performed in 26 patients. In 10 cases the result was suggestive for benign SPN. The sensitivity, specificity, PPV, NPV and diagnostic accuracy of CECT were 100%, 48%, 69%, 100%, and 58% respectively.

Conclusions: The diagnostic accuracy of FDG-PET/CT is higher than that of CECT. The advantage of CECT is its high sensitivity and NPV.

P3663

Prediction of the lung adenocarcinoma metastatic spread according to initial CT examination

Tamara Milosavljevic¹, Aleksandar Ivkovic². ¹Radiology, ZC Vranje, Vranje, Serbia; ²Center of Radiology, KC Nis, Nis, Serbia

Adenocarcinoma of the lung gives a wide specter of different metastatic spread. Often we can find them before primary neoplasm. Therapy and prognosis depends not only on possibility of medicament or surgical treatment but also on location of neoplasm.

Aim of the study is to show spread direction of lung adenocarcinoma according to localization of primary neoplasm followed by computerized tomography.

Material and methods: This is study of 4356 patients with 14528 CT examinations. All patients were with adenocarcinoma of the lung. All examination were performed on 16 or 64 MDCT, using virtual bronchoscopy were it was possible. Metastatic spread was followed by conventional radiography, ultrasound, scintig-

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P3660

Staging with FDG-PET/CT influences stage-specific survival in non small cell lung cancer (NSCLC)

Kaja Zimmermann¹, Simone Tönnies¹, Daniel Misch¹, Christian Boch¹, Nicolas Schoenfeld¹, Gregor J. Förster², Jens Kollmeier¹, Torsten Bauer¹.

¹Department of Pneumologie, Helios Klinikum Emil von Behring, Berlin, Germany; ²Department of Nuclear Medicine, Helios Klinikum Emil von Behring, Berlin, Germany

Background: Fluorodeoxyglucose (FDG)-PET/CT has a high sensitivity (89-100%) and reasonable specificity (79-95%) for the diagnosis of NSCLC. Currently it is mainly used in preoperative staging. In approximately 15% of these cases, it leads to the diagnosis of metastatic disease that was neither clinically suspected nor seen in conventional imaging. It may be assumed that integrating these cases in the palliative stage IV group, has an influence on overall survival.

Aim: To compare the overall survival (OS) of patients with stage IV NSCLC who underwent FDG-PET/CT staging with patients where conventional imaging procedures were performed.

Methods: We analyzed the OS of all patients diagnosed in 2009 (n=254), 96/254 (38%) patients were staged with PET/CT and 158/254 (62%) with conventional imaging (CT group). Survival data were compared by Kaplan-Meier statistics.

Results: Patient in the PET/CT group (65±11) were younger than in the CT group (68±10 years; p = 0.008). The median OS of all patients was 246 (range: 217 - 275); 338 (range: 247 - 429) days in the PET/CT group and 207 (range: 161 - 253) in the CT group (p = 0.001).

Conclusion: FDG-PET/CT staging leads to earlier recognition of stage IV NSCLC patients and thus longer survival times. To what extend a selection bias for age and/or clinical condition may have influenced our results, needs to be discussed.

P3661

CT-guided transthoracic breast lesion location wire implantation for small nonpalpable pulmonary nodules

Bart Ilse, Frederik Vandenbroucke, Johan de Mey, Radiology Department, Universitair Ziekenhuis Brussel, Brussels, Belgium

Purpose: To evaluate the technique, safety and diagnostic reliability of transthoracic wire implantation for nonpalpable and invisible small pulmonary nodules (SPN) prior to video-assisted thoracoscopic surgery (VATS).

Methods: From April 2009 till January 2011, 17 patients underwent 18 VATS resections after insertion of a "breast lesion localization wire" (7,7 or 10,7cm needle length and 20-gauche size) into a SPN. The wire was placed using a CT fluoroscopy procedure.

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raphy, MDCT and MRI according on location. Male patients were 2821 (64.76%), female 1535 (35.24%). Middle age of patients was 68.3 years.

Results: We divided results according to lobar anatomy parts of the first sign of neoplasm on initial CT examination, with hilar presentation of neoplasm like separate entity. Neoplasm of both upper lung lobes were spread dominantly on supra renal gland (67.14%), after that on liver and then on bones. Neoplasm of middle right lobe was spread in both hilar regions. Basal tumors are mostly spread in bones (34.73%) and after that in liver. Hilar neoplasm spread to brain mostly (76.36%). Second group were patients where we find metastatic spread before primary neoplasm and on second examination lung adenocarcinoma.

Conclusion: Spread prediction of lung neoplasm is very important for therapy and prognosis. CT is golden standard for evaluation.

P3664

CT guided biopsy of thoracic lesions

Mehrdad Bakhshayeshkaram, Pooyeh Graili, Soheyla Zahirifard. *Radiology Department, National Research Institute of Tuberculosis and Lung Diseases, Tehran, Islamic Republic of Iran*

Purpose: This study was designed to assess different variables of thoracic benign and malignant masses on Computed tomography (CT) guided biopsy and to identify the complication rate of procedure.

Materials and methods: We evaluated 757 CT-guided biopsies of thoracic lesions performed from March 2004 to December 2008, retrospectively. All biopsies were performed by one radiologist. The CTs were assessed by a trained general practitioner for the size and location of lesions and pneumothorax diagnosis and then all CTs were double checked by the same radiologist. Lesions considered benign or malignant based on pathology reports.

Results: Biopsy yielded sufficient tissue for pathologic examination in 612 cases (80.8%); 224 lesions (29.6%) were benign and 388 lesions (51.3%) were malignant (27 small cell and 233 non-small cell tumors). The most prevalent location of lesions was Right Upper Lobe (182 cases). 78 masses were located in mediastinum and 41 lesions in chest wall. 44.2% of benign lesions belonged to infectious (69.7% bacterial, 20.2% fungal, 6.1% hydatid cyst and 4% TB) and the rest were inflammatory masses (43.8%), granulomatous (5.8%) and neoplastic (6.2%) ones. The mean size of benign and malignant lesions were 6.011 and 7.481 cm, respectively (P.V. <0.05). Complication presented in 40 cases; pneumothorax occurred in 37 (4.9%) and bleeding in 3 (0.4%) patients.

Conclusion: CT-guided needle biopsy seems to be a reliable diagnostic modality with low risk probability of complications for thoracic lesions.

P3665

P3666

Mehrdad Bakhshayeshkaram, Pooyeh Graili, Soheyla Zahirifard. *Radiology Department, National Institute of Tuberculosis and Lung Diseases, Tehran, Islamic Republic of Iran*

Background: In recent years, CT-guided biopsy is going to be replaced with open biopsy for Lymphoma diagnosis.

Objectives: This study was designed to assess Lymphoma diagnosis on CT-guided biopsy and to identify the complication rate of procedure.

Methods: We evaluated 78 CT-guided biopsies of mediastinal lesions performed from March 2004 to December 2008, retrospectively. All biopsies were performed by one radiologist. The CTs were assessed by a trained general practitioner for the size and location of lesions and pneumothorax or pneumomediastinum diagnosis and then all CTs were double checked by the same radiologist. Lesions considered benign or malignant and lymphoma based on pathology reports.

Results: Biopsy yielded sufficient tissue for pathologic examination in 63 cases

(80.77%); 14 lesions (17.9%) were benign and 49 lesions (62.8%) were malignant. In malignant masses 15 Lymphoma (30.6%) and 20 other kinds of tumors (46.8%) were found. Moreover, 1 malignant lesions had no differentiation. Among Lymphoma lesions, there were 7 (46.7%) Hodgkin, 5 (33.33%) Non-Hodgkin Lymphoma and 3 (20%) Lymphoma without differentiation. Pneumothorax or pneumomediastinum as complications did not present in any case.

Conclusion: CT-guided needle biopsy seems to be reliable as a less invasive diagnostic modality with low risk probability of complications for Lymphoma.

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Conclusion: CT-guided needle biopsy seems to be reliable as a less invasive diagnostic modality with low risk probability of complications for Lymphoma.

P3667

Regional ventilation distribution in experimental sub-lobar acute lung injury
Gunnar Elke¹, Matthew K. Fuld^{2,3}, Ahmed F. Halaweish^{2,3}, Norbert Weiler¹, Eric A. Hoffman^{2,3}, Inez Frerichs¹. ¹Department of Anaesthesiology and Intensive Care Medicine, University Medical Centre Schleswig-Holstein, Campus Kiel, Kiel, Germany; ²Department of Radiology, Division of Physiologic Imaging, University of Iowa Carver College of Medicine, Iowa City, IA, United States; ³Department of Biomedical Engineering, University of Iowa, Iowa City, IA, United States

Introduction: Electrical impedance tomography (EIT) is able to trace ventilation-related changes in electrical properties of lung tissue. Previous studies using computed tomography (CT) suggested a good correlation between regional EIT data and lung tissue density. However, no validation data exist in regional acute lung injury (ALI).

Objective: To validate EIT measurements of regional ventilation (rVa) by dynamic Xenon-multidetector-row CT (Xe-MDCT) in two animal models of regional ALI. **Methods:** 9 anaesthetized mechanically ventilated pigs were examined before and after induction of ALI within two adjacent sub-lobar lung segments by repetitive saline lavage (n=4) or endotoxin sepsis injury (n=5). EIT data were acquired at 25 scans/s (GoeMF II system, CareFusion, Höchberg, Germany). Xe-MDCT (Sensation 64, Siemens AG, Forchheim, Germany) was performed at the same thoracic region. EIT and Xe-MDCT rVa images during control and ALI were divided into 32 regions of interest (ROI) in each hemithorax. rVa differences for both methods were obtained by subtracting the corresponding values in each ROI. EIT and CT measurements were compared by Spearman's Rho correlation.

Results: In 4 of 9 animals analyzed so far, rVa difference images revealed a ventilation decrease in the injured (right) lung and an increase in the non-injured (left) lung compared to control. rVa changes occurred in spatially similar locations. Spearman's rho ranged from 0.931-0.936 for the right and 0.943-0.979 for the left hemithorax in control. In ALI, ranges were 0.857-0.933 and 0.948-0.981, respectively (p<0.001).

Conclusion: A good correlation existed of rVa determined by EIT and Xe-MDCT in the 4 animals with regional ALI compared to date.

P3668

CT findings in hantavirus pneumonia outbreak in children

Aleksandar Ivkovic¹, Tamara Milosavljevic², Zoran Radovanovic¹. ¹Center of Radiology, Clinical Center Nis, Nis, ²Radiology, ZC Vranje, Vranje, Serbia

Hantaviruses belong to the Bunyviridae family of viruses. Like all members of this family, Hantaviruses have genomes comprising three negative-senses, single-stranded RNA segments, and so are classified as negative sense RNA viruses. Viruses in the genus Hantavirus are unique in that they are transmitted by aerosolized rodent excreta or rodent bites, whereas all other genera in the Bunyviridae family are arthropod-borne viruses.

Aim of the study: The main aim is to show cases of Hantavirus pneumonia in child population.

Material and methods: We examined 23 child patients with confirmed Hantavirus pneumonia. The youngest patient was 4 years old, the oldest 16. We examined all patients on 16 or 64 MDCT.

Results: After the major flood we had few outbreaks, one of them was Hantavirus with mainly pulmonary form. All patients were from rural parts with no medical institution near, so patients went to medical care in late phase of illness. In the first phase symptoms were similar or same as influenza like fever, chills, sweaty palms, diarrhea, malaise, headaches, nausea, abdominal and back pain, tachycardia and hypoxemia but in the late phase occur a lot of different symptoms. CT signs develop rapidly and constantly, first one sided mostly near hilum but as time goes by illness went to other side. First radiology sign is similar to bronchiolitis and after that massive inflammation, than again bronchiolitis in next lung segment. In the lethal cases (8, 34.78%) illness develop for two months, each day symptoms were worse. We had 3 patients with massive hemoptysis and bleeding after hemodialysis.

Conclusion: Lung form of Hantavirus illness is very often lethal. Understanding the way of developing can be vital for patient life.

P3669

Radiological features of pneumocystis pneumonia (PCP) without HIV

Nobuhiro Asai¹, Yoshihiro Ohkuni¹, Ryo Matsunuma¹, Yoshihito Otsuka², Norihiro Kaneko¹. ¹Pulmonology, Kameda Medical Center, Kamogawa, Chiba, Japan; ²Laboratory Medicine, Kameda Medical Center, Kamogawa, Chiba, Japan

Purpose: PCP occurs in immunosuppressed patients including those with malig-

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nancies. This study analyzed the relationship between the radiological features in chest X-ray and computed tomography (CT) of PCP patients without HIV and the outcome or patient's background.

Methods: All 26 patients were diagnosed by respiratory samples combined with chest X-ray and CT findings. We retrospectively analyzed these data at the onset of the sickness.

Results: Twelve patients had malignancies. Fifteen patients had rheumatic and autoimmune disease. Steroid or immunosuppressive agents were administered in 72% and 40% respectively. Five patients received PCP prophylaxis. From a radiological point of view, chest X-ray revealed bilateral infiltration in 13 patients (52%). Chest CT showed a higher proportion of diffuse ground glass opacities (GGO) in 18 patients (72%). Consolidation and plural effusion were seen in 8 (32%) and 11 patients (44%) respectively and none had cystic lesions. All CT findings were classified as follows; 17 (68%) bilateral GGO either with sharp demarcation by interlobular septa (type A) or 4 (16%) without interlobular septal boundaries (type B), 2 (8%) infiltration mixed with GGO and consolidation (type C), 2 (8%) type D representing the rest cases. There was no correlation between these radiological features and outcomes.

Conclusions: Non-HIV PCP could show variety of radiological patterns and chest X-ray was not enough for the diagnosis of PCP. Despite our results, there still remains the possibility of the presence of the correlation of the radiological features or the patients background with the outcome and severity of PCP if more cases are studied. We expect more analysis to be done.

P3670

Primary versus acquired multidrug-resistant tuberculosis: Which are the true features of multidrug-resistant tuberculosis itself on thin-section CT

Inyoung Song¹, Myung Jin Chung¹, W. Koh², Chin A. Yi¹, Kyung Soo Lee¹.

¹Departments of Radiology and Center for Imaging Science, Samsung Medical Center, Seoul, Korea; ²Division of Pulmonary and Critical Care Medicine at the Department of Internal Medicine, Samsung Medical Center, Seoul, Korea

Purpose: We designed this study to compare thin-section CT (TSCT) findings of the primary multidrug-resistant (MDR) TB (MDR- P) and non-primary MDR TB (MDR-A) to those of drug-sensitive (DS) TB.

Materials and methods: We included 37 consecutive patients with MDR-P and 86 MDR-A who underwent TSCT of chest. 123 patients with DS TB selected as a control group. Each DS TB patient was age and gender matched to a MDR TB patient. The frequency of lung lesion patterns in terms of tree-in-bud opacity/micronodules (TIB), nodule, consolidation, cavities, large fibrotic thin-walled cavity, and lobar volume decrease observed at TSCT were compared among DS TB, MDR-P, and MDR-A.

Results: TIB (92%) and consolidations (76%) were most frequent findings of MDR-P. The frequencies of these are similar to those of DS TB (TIB for DS TB = 88%, $p=0.561$; consolidations = 81%, $p=0.527$). Cavities were next common findings of MDR-P (70%) and this frequency was similar to that of MDR-A (58%, $p=0.260$) than DS TB (38%, $p<0.001$). Volume decrease, large thin walled cavity, and pleural thickening were infrequent findings of MDR-P (22%, 5%, 1%, respectively) but common in MDR- A (56%, 30%, 42%, respectively), which mean chronic fibrotic condition.

Conclusion: Single or multiple cavities as well known typical feature of MDR TB are also common in MDR-P and not significantly different from MDR-A. In addition, MDR-P and DS TB reveal more common acute inflammatory findings (tree-in-bud pattern/micronodules, lobular consolidation, and overall consolidation) than MDR-A which reveal chronic fibrotic findings (thin walled cavity and volume decrease) in TSCT.

P3671

Second year of H1N1 influenza: CT of the rare complications

Aleksandar Ivkovic¹, Tamara Milosavljevic², Zoran Radovanovic¹. ¹Center of Radiology, Clinical Center Nis, Nis, ²Radiology, ZC Vranje, Vranje, Serbia

It is a second year of pandemic H1N1 influenza. Patients from second year of outbreak have a lot of differences than first year patients.

Aim of the study: The main aim is to show cases of influenza from the second year of outbreak and CT signs of rare complications.

Material and methods: We perform lung CT on 102 patients with positive H1N1 influenza. Patients were from 16 to 42 years old. Male were 58, female 54. All patients were examined on 16 or 64 MDCT using standard procedure and virtual bronchoscopy; we use also MDCT angiography in cases with high D-dimer test.

Results: This year outbreak has 3 different forms. First and most common form is abdominal with almost no lung symptoms. Second form has mostly neurology symptoms with few lung symptoms. Third form of outbreak has high lung symptoms with coughing, hypoxemia, pulmonary hypertension, high body temperature, nausea, vomiting, headache, neurology disorder, high blood pressure. In all 3 groups after first wave of illness second wave was with lot of different complications. In 17 patients we discover mediastinitis. In 3 patients we discover forms of bilateral granulomatosis, in 6 patients we find pulmonary thromboembolism, in 5 we find injuries of alveolar wall, in 2 patients we find massive hemoptysis, in 6 patients we find bilateral lymphadenopathy, in 1 patient we find dissecting aneurysm of whole aorta. We had 10 lethal cases. If we compare results with first year the percent of lethal cases is similar, also number of thromboembolism but everything else is different.

Conclusion: Second year of outbreak bring us different form of complications. MDCT have a significant place in detection of all lung complications.

P3672

WITHDRAWN

P3673

Pulmonary hydatidosis mimicking metastatic malignancy

Samira Aouadi, Imen Bachouche, Sonia Maalej, Meriem Mjid, Mahrezia Bourguiba, Ali Ben Kheder, Ikram Drira. Respiratory Department D, Abderrahmen Mami Hospital, Ariana, Tunisia

Scattered pulmonary nodules are usually highly suspicious of metastatic malignancy, but can be one of radiological presentations of some infectious diseases such as hydatidosis. In order to analyse particularities of pulmonary hydatidosis mimicking metastatic malignancy, we report 5 cases of patients hospitalized in the pulmonary department of the Tunis Chest Disease and Surgery Training Hospital. The average age was between 36 and 74 years. The clinical features were dominated by haemoptysis (4 cases) and cough (2 cases). Chest radiograph showed disseminated pulmonary opacities in all cases. CT scan of the chest was helpful for diagnosis. Fiberoptic endoscopy performed in all cases showed hydatid membrane and confirmed the diagnosis in 2 patients. Investigation ELISA for Echinococcus was positive in all cases. Four patients had pulmonary embolic hydatidosis due to the involvement of right cardiac cavities. One patient had bronchogenic hydatidosis due to the rupture of pulmonary cysts into bronchi. Medical treatment (albendazole) was performed in all patients associated with surgical treatment in 2 cases. After treatment, 2 cases of recurrence were noted.

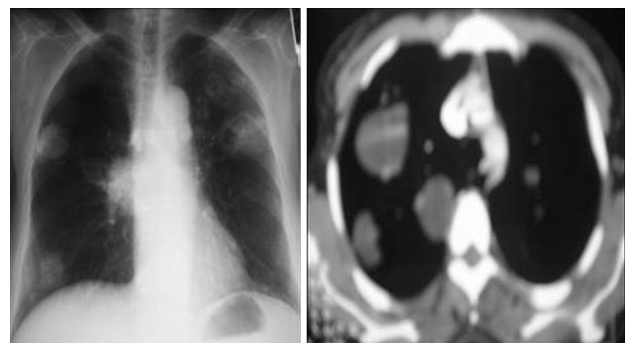


Figure 1. Disseminated pulmonary hydatidosis.

Disseminated pulmonary hydatidosis may present diagnosis difficulties particularly with metastatic malignancy. Its management is difficult and costly.

P3674

Does it matter who requests HRCT scans?

William Kent, Alexander Youzguin. Respiratory Medicine, Southport and Ormskirk NHS Hospital Trust, Southport, United Kingdom

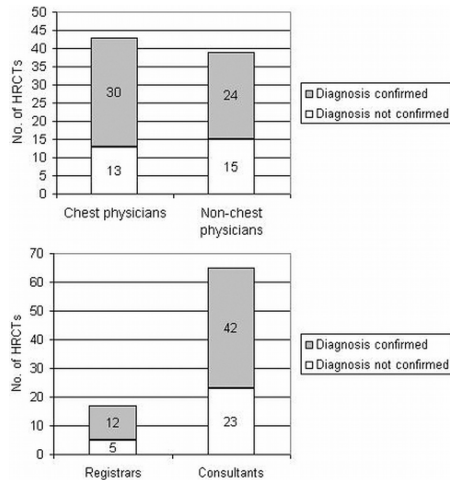
Introduction: High resolution computerised tomography scanning (HRCT) is

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widely used for the investigation of interstitial lung disease (ILD) and bronchiectasis. If significant numbers of inappropriate scans were requested it could be argued that its use should be restricted to senior chest physicians only.

Methods: All HRCT scans performed over an eight month period between January - August 2009 at our hospital were identified and only those that had been performed as an initial investigation into suspected ILD/bronchiectasis were included. The xray card and clinic letters were analyzed to see who had requested them.

Results: 82 HRCT scans were eligible for inclusion. 30/43 (69.8%) of the scans requested by respiratory physicians confirmed the suspected diagnosis compared with 24/39 (61.5%) by non-respiratory physicians ($p = 0.4892$). 12/17 (70.6%) of the scans requested by respiratory trainees confirmed the diagnosis compared with 42/65 (64.6%) requested by consultant physicians ($p = 0.7774$).



Conclusion: There was no significant difference in the number of negative scans requested by non-respiratory and respiratory physicians or between respiratory trainees and Consultants. We therefore suggest that the use of HRCT scanning should not be restricted to senior respiratory specialists.

P3675

Lung tularemia in patients with tuberculosis presented by CT

Aleksandar Ivkovic¹, Tamara Milosavljevic², Zoran Radovanovic¹. ¹Center of Radiology, Clinical Center Nis, Nis, Serbia; ²Radiology, ZC Vranje, Vranje, Serbia

After the major flood we had outbreak of tularemia. Tularemia, also known as rabbit fever, is a disease caused by the bacterium *Francisella tularensis*. Depending on the site of infection, tularemia has six characteristic clinical syndromes: ulceroglandular, glandular, oropharyngeal, pneumonic, oculoglandular, and typhoidal. Outbreak become in region with high rate of tuberculosis.

Aims: The main aim is to show cases of tularemia on patients with tuberculosis.

Methods: We examined 63 patients with acute form of lung tularemia who already had tuberculosis (from 186 patients with lung tularemia). Male patients were 48, female were 15. Patients were from 48 to 87 years old. We examined all patients on 16 or 64 MDCT.

Results: After the huge flow in several rural parts, there were outbreaks of tularemia. 186 patients were with syndromes of lung pneumonia with symptoms of fever, chills, headache, muscle aches, joint pain, dry cough, and progressive weakness. Patients also develop chest pain, difficulty breathing, bloody sputum, and respiratory failure. In 63 we find signs of all forms of tuberculosis. Developing of symptoms occurs faster in those patients with bizarre radiology signs from military form to caverns filled with acute areas of tularemia grow. CT findings of the lungs were developing in few steps with progression even when other symptoms were gone. First we find enlargement of the hilar region of the lung and after few day illness develop into the lung parenchyma, firstly retro hilum and after that slowly on the whole lung, part by part with bronchiolitis.

Conclusion: CT has a significant role in determining and following of all form of lung diseases.

P3676

Interpretation of chest radiographs from children with lower respiratory tract infections

Martin Edwards¹, Zoe Lawson², Sue Morris³, Alison Evans³, Sara Harrison³, Jo Crocker², Colin Powell¹. ¹Child Health, Children's Hospital of Wales, Wales School of Medicine, Cardiff, United Kingdom; ²Department of Primary Care and Epidemiology and Statistics, Wales School of Medicine, Cardiff University, Cardiff, United Kingdom; ³Paediatric Radiology, University Hospital of Wales, Cardiff University, Cardiff, United Kingdom

Introduction: Pneumonia is a common diagnosis amongst children admitted to hospital. Diagnosis relies upon accurate chest radiograph interpretation. This

study compared levels of agreement amongst paediatric clinicians and consultant paediatric radiologists when interpreting CXRs.

Methods: Four paediatric radiologists, independently interpreted 5 radiological features (and no features) for each of 30 CXRs, randomly selected from 100 radiographs attained over two years from children with fever & signs of respiratory distress aged 6 months to 16 years. The same CXRs were then interpreted by 21 other paediatricians with varying experience level. Agreement split by grade and speciality, was analysed using free-marginal multirater Kappa, assuming no prior expectation of the proportion of radiographs with each feature.

Results: Agreement (-1 relates to complete disagreement, 0 to chance agreement, and 1 to complete agreement)

	Paediatric Consultants (5)	Paediatric Radiology (4)	Paediatric Trainees (ST4-9) (2)	Trainees (FP1-2/ST1-3) (9)	Medical students (5)
Consolidation	0.28	0.77	0.73	0.27	0.35
Pleural effusion	0.89	0.83	0.73	0.74	0.69
Atelectasis	0.35	0.78	0.40	0.67	0.71
Hyperinflation	0.57	0.69	0.60	0.47	0.73
Peribronchial thickening	0.27	0.67	0.47	0.21	0.37
Normal (no feature)	0.71	0.96	0.87	0.78	0.73

Conclusion: Paediatric radiologists showed high levels of agreement for all features. Normal CXRs and pleural effusions were identified consistently amongst all 25 clinicians. However, interpretation of all other features had lower levels of agreement within non paediatric radiologists. This highlights the need for more rigid training in interpreting CXRs for paediatricians and the early reporting of CXRs by paediatric radiologists.

P3677

Usefulness of vibration response imaging (VRI) for pneumonia patients

Kwang Ha Yoo, Kye Young Lee, Sun Jong Kim, Won Dong Kim, Hee Jung Kim, Eugene Park. Department of Pulmonology, Internal Medicine, Konkuk University Hospital, Seoul, Korea

Background: Pneumonia is commonly seen in outpatient clinics, and it is the most common cause of death in infectious disease. Pneumonia is diagnosed by symptoms, chest X-ray and blood tests. Chest X-ray and blood tests have its limitations and primary care clinicians usually do not have adequate diagnostic tools. VRI is a new diagnostic modality and the procedure is non-invasive, radiation-free, and easy to handling. The aim of this study was to evaluate the diagnostic usefulness of the VRI test in pneumonia patients and the correlation between other conventional test such as Chest X-ray, Laboratory tests and clinical symptoms.

Methods: VRI was performed in 57 patients who diagnosed with pneumonia in Konkuk University Medical Center. VRI was measured in a quiet room initially and after treatment. The change of Chest X-rays, CRP, WBC, Body temperature were compared with the change of VRI during time course.

Results: Mean age was 60 years, and average follow up periods was 7.1 days. VRI, chest X-ray and CRP was significantly improved after treatment. Correlation with VRI and other test was not seen all patients. But female patients and relatively severe pneumonia patients showed correlation with VRI and chest X-ray.

Conclusion: This study demonstrates that VRI can be safely applied to patients with pneumonia.

P3678

Fungus ball diagnosed on computed tomography (CT) guided needle biopsy of thoracic lesions

Mehrdad Bakhshayesh, Pooyeh Graili, Soheyla Zahirifard. Radiology Department, National Research Institute of Tuberculosis and Lung Diseases, Tehran, Islamic Republic of Iran

Background: CT-guided biopsy provides results in a short period and can be applied on outpatient and even high risk patients however; some studies do not recommend it in lesions with benign histology probability

Objectives: To report our experience regarding fungus ball diagnosis on CT-guided biopsy and to identify the complication rate of procedure.

Materials and methods: We evaluated 99 CT-guided biopsies of infected thoracic lesions performed from March 2004 to December 2008, retrospectively. All biopsies were performed by one radiologist by westcott needle number 20 and 18. The CTs were assessed by a trained general practitioner for the size and location of lesions and pneumothorax or pneumomediastinum diagnosis and then all CTs were double checked by the same radiologist. Lesions considered fungus and their differentiations based on pathology reports.

Results: During four year study 20 fungus lesions (15 male and 5 female) were found with the mean age 54.75 years (ranging: 19-77). In these series there were 16 (80%) Aspergillus, 2 (10%) Mucor mycosis and 2 undifferentiated fungus ball. The mean diameter of lesions and lesion distance to chest wall were 5.650 cm (range: 1 to 11.5) and 0.75 cm (range: 0 to 3), respectively. Nine (45%) fungus lesions were located in left upper, 4 (20%) in right lower, 4 (20%) in right upper and the rest (15%) in left lower and right middle lobes. Pneumothorax occurred in 2 cases (1 Aspergillus and 1 Mucor mycosis) while chest tube was placed only for patient with Mucor mycosis to manage the complication.

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Conclusion: CT-guided needle biopsy seems to be safe and feasible diagnostic modality with low risk probability of complications for fungus balls.

P3679**Hydatid cyst diagnosed on computed tomography (CT) guided needle biopsy of thoracic lesions**

Mehrdad Bakhshayeshkaram, Pooyeh Graili, Soheyla Zahirifard. *Radiology Department, National Research Institute of Tuberculosis and Lung Diseases, Tehran, Islamic Republic of Iran*

Background: CT-guided biopsy provides results in a short period and can be applied on outpatient and even high risk patients however; some studies do not recommend it in lesions with benign histology probability.

Objectives: To report our experience regarding hydatid cyst diagnosis on CT-guided biopsy and to identify the complication rate of procedure.

Materials and methods: We evaluated 99 CT-guided biopsies of infected thoracic lesions performed to investigate hydatid cyst masses from March 2004 to December 2008, retrospectively. All biopsies were performed by one radiologist by westcott needle number 20 and 18. The CT scans were assessed by a trained general practitioner for the size and location of lesions and pneumothorax or pneumomediastinum diagnosis and then all CT scans were double checked by the same radiologist. Lesions considered infection and their differentiations based on pathology reports.

Results: During four year study 6 hydatid cysts (3 male and 3 female) were found with the mean age 49.83 years (ranging: 25-81). The mean diameter of lesions and lesion distance to chest wall were 4.083 cm (range: 1 to 6) and 0.417 cm (range: 0 to 1.5), respectively. In these cases, 3 (50%) hydatid cyst were located in left lower lobe, 2 (33.3%) in left upper lobe and 1 (16.7%) in mediastinum. Pneumothorax or pneumomediastinum as complications did not present in any case.

Conclusion: CT-guided needle biopsy seems to be safe and feasible diagnostic modality with low risk probability of complications for hydatid cysts.