

ALI/ARDS by lung ultrasound in rats. The present study was designed to investigate the degree of agreement of lung ultrasonography and computed tomography (CT) results in diagnosing certain main characteristics of ALI/ARDS in rats.

METHODS Thirty male Sprague-Dawley rats were randomized into three groups, each group have ten rats. ALI/ARDS was induced in the rats of the two experimental groups by intratracheal instillation of LPS at different concentration (2 mg/ml LPS at 3 mg/kg, 4 mg/ml LPS at 6 mg/kg). The control group were instilled with the same volume of isotonic saline solution. After two hours, lung ultrasound was performed. Then, three rats in each group immediately underwent chest micro-PET/CT scan. Cross table analyses and kappa statistics were used to determine the levels of agreement between LUS and CT assessments for the main characteristics of ALI/ARDS in rats.

RESULTS Most of the healthy rats presented A pattern; however, B lines appeared when we instilled NS/LPS to the trachea, the LPS groups showed more B lines than the NS group. One rat in the 4 mg/ml LPS group presented a consolidation sign. The agreements between the LUS and the CT in detecting the main characteristics of ALI/ARDS in rat lungs were strong ($k=0.785$). Additionally, a significant correlation was found between LUS and CT imaging in the detection of the main characteristics of ALI/ARDS ($r=0.79$, $p<0.01$).

CONCLUSIONS In an experimental rat model of ALI/ARDS, the data showed that LUS can detect the main characteristics of ALI/ARDS with high agreement with micro PET/CT scanning results, suggesting that LUS is a good alternative for the diagnosis of ALI/ARDS in rats.

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Hypoalbuminemia complicated with pulmonary embolism 3 cases

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OBJECTIVES Pulmonary embolism is a common fatal emergency, the misdiagnosis rate and missed diagnosis is high, a variety of reasons can cause or induce pulmonary embolism, however, the relationship between hypoalbuminemia and pulmonary embolism is still a lack of research, this article aims to explore hypoalbuminemia complicated by pulmonary embolism related mechanism, so as to provide the basis for clinical and basic research.

METHODS In recent years we caused by three different causes were treated with hypoalbuminemia patients complicated with pulmonary embolism were analyzed retrospectively and related literatures were reviewed.

RESULTS Blood coagulation and fibrinolysis imbalance, platelet aggregation, increased blood viscosity, may be the result of pulmonary embolism hypoalbuminemia mechanism.

CONCLUSIONS Emphasis on hypoalbuminemia merger risk factors of pulmonary embolism, is very important for early diagnosis and improve the prognosis.

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Investigation of detecting plasma lactate and NT-proBNP changes in patients with pulmonary embolism subjected to thrombolytic treatment

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OBJECTIVES To evaluate the efficacy of thrombolytic therapy with reteplase and investigate the clinical value of detecting plasma lactate and N-terminal pro-brain natriuretic peptide (NT-proBNP) changes in patients with acute pulmonary embolism (APE).

METHODS This was a retrospective study at the Cardiology department of the hospital. All patients with a diagnosis of PE established by lung scan or spiral computed tomography (CT) and confirmed by pulmonary angiography if necessary. From September 2011 to September 2014, a total of 184 patients were diagnosed with PE. Of these patients, 56 patients complied with the requirements for thrombolytic therapy were included in this analysis. they were treated with reteplase thrombolytic therapy. Plasma lactate, NT-proBNP and cardiac troponin T(cTnT) levels were monitored before and up to 6 h after thrombolytic therapy. Echocardiography evaluation, multi-detector row CT and ventilation-perfusion scintigraphy were repeated after 12-24 hours to reevaluate perfusion status.

RESULTS 49(87.5%) patients exhibited significant reperfusion. 7(12.5%) patients exhibited no significant reperfusion, 4(7.1%) patients died during their hospital stay. Plasma lactate, NT-proBNP and mean pulmonary arterial pressure decreased significantly in all of patients of reperfusion group (7.14 ± 2.71 mmol/L to 2.04 ± 0.56 mmol/L; 8672.4 ± 201.7 pg/ml to 1559.8 ± 23.5 pg/ml; 52.82 ± 17.34 mmHg to 38.13 ± 12.32 mmHg, $P<0.01$). Plasma lactate and NT-proBNP levels decreased has a positive correlation with pulmonary arterial pressure, RV/LV ratio (r 0.68, 0.62, 0.57, $P<0.01$). No significant variation was observed in cTnT levels. As compared with pre-treatment, there was no significant improvement in levels of plasma lactate and NT-proBNP in negative angiographic reperfusion patients. 7 cases (7/56,12.5%) in these patients with bleeding, 2 cases nasal bleeding, 1 case bleeding gums, 1 case hemorrhoids bleeding, 1 case hemoptysis and macroscopic hematuria in 2 cases. No death of fatal bleeding reason in the process of hospital stay.

CONCLUSIONS Thrombolytic therapy with reteplase is effective and safe for acute pulmonary embolism. Serial measurements of plasma lactate and NT-proBNP could be useful as a tracking tool to assess the success or failure of the thrombolytic treatment.

KIDNEY DISEASE

GW26-e0678

The risk of preexisting microalbuminuria for contrast-induced acute kidney injury after scheduled coronary angiography among patients with a preserved renal function

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OBJECTIVES To investigate the association between preexisting microalbuminuria and contrast-induced acute kidney injury (AKI) after coronary angiography among patients with a preserved renal function.

METHODS 612 consecutive patients with a preserved renal function undergoing scheduled coronary angiography were stratified into microalbuminuria group (107 patients) and normal-albuminuria group (505 patients) according to the albumin to creatinine ratio (ACR) levels. Microalbuminuria was defined as ACR in the range of 30-300 mg/g and normal-albuminuria was defined as ACR <30 mg/g. Contrast-induced AKI was defined as a relative increase in serum creatinine (SCr) concentration of at least 25% or an absolute increase in SCr of 0.5 mg/dl within 72 hours after the procedure.

RESULTS The peak increases of SCr in microalbuminuria group were significantly larger than those in normal-albuminuria group ($10.6\pm 12.4\mu\text{mol/L}$ vs $4.8\pm 8.9\mu\text{mol/L}$, $P=0.000$), and the incidence of AKI was significantly higher in patients with microalbuminuria than those with normal-albuminuria (12.1% vs 5.0%, $P=0.005$). Multivariable analysis revealed that there was a strong association between microalbuminuria and contrast-induced AKI risk after adjusting for confounders ($P=0.005$).

CONCLUSIONS Preexisting microalbuminuria is associated with greater risk for AKI in patients with a preserved renal function who undergo scheduled coronary angiography.

GW26-e5379

Short-term Peri-procedural Common Doses (Double-Dose vs Usual-dose) of Atorvastatin for Prevention of Contrast-Induced Acute Kidney Injury and Long-term Outcomes in Patients with Different High CRP Levels undergoing Coronary Angiography or Percutaneous Coronary Intervention

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OBJECTIVES To investigate the effects of short-term peri-procedural double-dose (vs usual-dose) atorvastatin (both the most common