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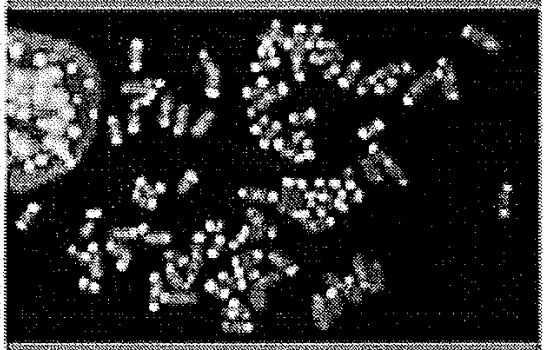

ABSTRACTS 16th ERS Annual Congress

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this retrospective study the prognostic value of demographic, clinical, laboratory characteristics of the patients, initiation time of the antibiotic therapy and scoring systems of pneumonia (revised ATS criteria, CURB-65, PSI) and ICU (APACHE II, SOFA) were evaluated. For the assessment of mortality related factors patients were divided into two group as survivors (n= 46) and non survivors (n=55). The results were evaluated with t-test, chi-square and logistic regression analysis. 38 female and 63 male, a total of 101 severe CAP patients, with the mean age of 68 ± 16 were included in the study. 90% of all patients met the revised ATS criteria and 75% of them met the PSI scoring system for ICU admissions. No statistically significant difference in age, sex, underlying diseases, development of ARDS and initiation time of antibiotic treatment, length of stay in ICU and duration of mechanical ventilation was found between survivors and nonsurvivors. Although the predictive values of CURB-65, PSI, revised ATS criteria were not found to be statistically significant, the increased APACHE II score was found to be related with increased mortality rate (for APACHE II >20 OR=3, %95 CI: 1.2-7, p=0,024). These results suggest that, revised ATS criteria can be used in decision of ICU admission and APACHE II score can be supportive in mortality prediction.

P1111

Does extravascular lung water limit lung recruitment success in severe ARDS?

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Recruitment manoeuvre (RM) is a part of the "open lung" concept. Unfortunately, the result of RM on oxygenation is predictable only at early stages of ARDS. It has been well known that extravascular lung water (EVLW) tends to accumulate in the injured lungs despite the proper respiratory support with PEEP application. The aim of our clinical study was to investigate the role of EVLW and other factors on the success of RM.

Patients and methods: We studied lung water state using transpulmonary thermodilution technique (PiCCO, Pulsion Medical Inc.) in 12 patients with severe ARDS (mean PO_2/FiO_2 was 85). All the patients were mechanically ventillated using the "open lung" concept. PEEP levels were set using from PV-loop. The total number of EVLW measurement followed by RM was 45. The primary goal of RM was thought oxygenation improvement (relative PO_2/FiO_2 change).

Results: Mean PO_2/FiO_2 rise was 43%. Poor correlation between relative PO_2/FiO_2 and EVLW was noted (r 0.1). Factors, predicting poor response to RM were day of respiratory support (r -0.5) and septic state of the patient

P1112

Intermittent suction of oral secretion can reduce ventilator-associated pneumonia

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Purpose: Intermittent or continuous subglottic suction proves useful in reducing ventilator-associated pneumonia (VAP). In this study, we prospectively evaluated the effect of intermittent suction of oral secretion before positional change in critical on reducing VAP.

Design: A prospective study

Patients: Two hundred and twenty-seven patients who were admitted to intensive care unit (ICU) from March to September 2005 and fulfilled the patient selection criteria were included for this study. To serve as controls, 237 patients who were admitted to the same ICU from January to September 2004 were enrolled. All patients were placed in a semi-recumbent (30-45 degree) body position except for those with contraindications.

Intervention: Intermittent suction of oral secretion before each positional change was done in studied group.

Results: VAP developed more frequently in control group (26 of 237 patients, 10.9%) than in studied group (six of 227 patients, 2.6%) ($p < 0.001$). The incidence rate of VAP in control and studied groups was 6.68/1,000 and 1.88/1,000 ventilator days, respectively ($p = 0.004$). Furthermore, the length of ICU stay was 27.6 ± 16.9 and 20.3 ± 13.9 days, respectively in control and studied groups ($p = 0.01$). Intermittent suction of oral secretion was the only independent factor responsible for the decrease of VAP in the studied group after Cox regression analysis.

Conclusions: Intermittent suction of oral secretion before positional change can reduce the occurrence of VAP in ICU patients.

P1113

Utility of fiberoptic bronchoscopy /FOB/ with bronchoalveolar lavage in intensive care unit /ICU/ patients after cardiac surgery

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Fiberoptic bronchoscopy /FOB/ has become a commonplace procedure in ICUs in patients after operation. We studied the outcomes of 35 FOBs performed in 26 patients /18 male and 8 female/ during their stay in the ICU of "St Ekaterina" University Hospital in Sofia after cardiac surgery with Cardiopulmonary Bypass. 33 /95%/ of our patients were receiving mechanical ventilation at the time of the FOB. Bronchoalveolar lavage/BAL/ was added to all procedures. 21/60%/ patients demonstrated an improvement after FOB. We defined improvement as either an increase of PaO2 with 10 or more mmHg in 6 hours after the procedure or better aeration on the follow-up chest radiograph/ CXR/. 19 /54%/ FOBs revealed a great amount of secretions, plugging up bronchial lumens. 14/73%/ of these patients were improved after FOB. The remained 16 FOBs did not observed an excessive amount of secretions.They were beneficial for only 7 /43%/ patients.16 procedures were performed on indications of atelectasis. 9 /56%/ of them showed an improvement after FOB. When atelectasis was not present on CXR, an improvement was achieved in 12/63%/ cases.

Conclusions: 1. FOB is most effective in removing retained secretions. 2. Although not so effective in resolving atelectasis that is not caused by obturation of bronchial lumina with mucus, FOB may improve the gas-exchange of the patient because of the additional benefit of BAL for cleaning more distal airways.

P1114

Managing pulmonary ARDS: a series of 12 consecutive cases

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In spite of the modern therapeutic gains hospital mortality remains high in ARDS (1). Objective of the study was to evaluate the outcome and the therapeutic strategy in a series of 12 consecutive primary (pulmonary) ARDS.

Method: In 12 patients with broncho-pneumonia, fullfilling the criteria for ARDS (2), with a mean APACHE II score of 22 (15-27) we invastigated the microbiological profile and we adopted a common protocol of antibiotherapy, supportive therapy and a protective strategy during mechanical ventilation (MV). We noted time and type of MV, complications and mortality.

Results: Bacterial etiology was identified in 7 cases (58%) but remained unknown in 5 cases. All patients received initial empirical antibiotic therapy, eventually modified with the antibiogram results. Mean time of MV in survivors was 6 days (3-18 days). In 8 patients, during protective MV, we used prone position, which significantly improved hypoxemia permitting better oxygenation at a lower level of FiO_2 and PEEP. 3 patients died (25%) with MSOF consecutive to the initial insult and complications during MV. Mortality was not correlated with the initial APACHE II score or with the microbiological result ($p<0,05$).

Conclusions: Our data suggest that the use of a protocol of therapy, including antibiotics and a protective strategy of MV can improve outcome in broncho-pneumonia and pulmonary ARDS. Mortality was not correlated with the initial APACHE II score or with the identification of the pathogen agent.

1. Brun-Buisson C, et al. Intensive Care Medicine 2004; 30(1):51 – 61
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P1115

Nosocomial bloodstream infections in intensive care unit

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Nosocomial bloodstream infectious (BSIs) are a major cause of morbidity and mortality in Intensive Care Unit (ICU).

Methods: Retrospective and prospective laboratory-based surveillance from 2000 to 2004 among 2638 patients with serious inflammatory diseases of central nervous system infections which were treated in the ICU.

Results: BSIs confirmed by positive results of blood culture were identified in 83(20,9%) patients with nosocomial infections. The mean age of the patients was 58 years, 59% were male. Of the infections, 52 (62,6%) were primary BSIs and 31 (37,4%) were secondary BSIs. The urinary tract was the most common source of secondary BSIs (29 [35%] of 83 BSIs). The most common organisms causing BSIs were: S. epidermidis (26%), S. aureus (15%), Klebisella-Enterobacter spp. (21%), Serratia spp. (19%), Escherichia coli (11%) and enterococci (8%). Central venous catheter was present for 65 (78%) of those BSIs. The mean interval between admission and infection was 12 days for infection with E. coli, Klebsiella-Enterobacter spp. and S. epidermidis, 21 days for S. aureus and Serratia spp. Resistance to methicllin was detected in 11% of S. aureus and 33% of S. epidermidis. Among enterococci, the proportion of vancomycin-resistant isolates were 17%. Klebsiella-Enterobacter spp.were resistance to ceftazidime in 25%. Mortality rate was 43,4%.

Conclusion: The incidence of nosocomial BSIs is increasing, as is the prevalence of antibiotic resistance among pathogens causing these infections.