

0.01), also correlations between BOD index and exacerbations are considerable. Moreover the correlational analysis revealed the presence of positive correlation between the BODE and HRQL: the total scores of the CCQ ( $r=0.62$ ,  $p<0.01$ ) and SGRQ ( $r=0.42$ ,  $p<0.01$ ) in elderly COPD patients. SAFE ( $r=0.34$ ,  $p<0.01$ ) and HADO scores ( $r=-0.33$ ,  $p<0.01$ ) correlated weaker with the rate of COPD exacerbations in elderly. Conclusion: The BODE and BOD scores correlate stronger with rate of COPD exacerbations in elderly and young COPD patients than HADO and SAFE scores.

## Predictors of Health Status in Patients with COPD Determined by Gender

**Mihaela Coliba**

Academic adviser: Alexandru Corlateanu, M.D., Senior lecturer

State Medical and Pharmaceutical University "Nicolae Testemitanu", Chisinau, Republic of Moldova

The influence of gender on the expression of COPD is studied rather superficially. Quality of life (QoL) has become an important outcome in COPD patients. Aim: The aim of the study was to analyse the factors which contribute to gender differences in quality of life of COPD patients. Methods: The following indices were taken into consideration: age, FEV1%, FVC, FEV1%/FVC, BODE index, 6 minute walk distance (6MWD), body mass index (BMI), dyspnoea (modified MRC), Saint George's Respiratory Questionnaire (SGRQ), Clinical COPD Questionnaire (CCQ), EuroQol Questionnaire in 80 men and women with COPD from pulmonary clinic. Results: 80 patients were divided into 2 groups of 40 women, mean age  $65 \pm 8.3$  years and 40 men, mean age  $64 \pm 8$  years. The mean FEV1% for the groups were  $46.27 \pm 15\%$  and  $44.9 \pm 9.5\%$ ,  $p=0.62$ . Patients in both groups had similar scores in all domains of the SGRQ: total 62.23 vs 65.01,  $p=0.29$ ; symptoms 76.46 vs 80.63,  $p=0.29$ ; activity 57.49 vs 59.35,  $p=0.58$ ; impact 60.49 vs 63.35,  $p=0.29$ . In CCQ there were also observed no significant differences in total score 2.96 vs 2.8,  $p=0.38$ . Minor differences were observed in BODE index 6.07 vs 5.9,  $p=0.68$ . The forward stepwise regression analysis shows that the BODE index, severity of obstruction and comorbidities are the important predictors of health related quality of life in men COPD patients, which explain 55% of the total score of SGRQ ( $p<0.01$ ). In women COPD patients, 6MWD, age and oxygenation explain 54.6% of SGRQ total score. Conclusion: In moderate and severe COPD patients attending a pulmonary clinic, there are no significant gender differences in health status scores. The main predictors of SGRQ total score in men are BODE index, degree of obstruction and comorbidities, whereas for women, the main predictors are age, exercise capacity and level of arterial oxygenation.

## 2009 AH1N1 – Associated Pneumonia, Clinical, Microbiological and Pathological Analysis of 15 Fatal Cases

**Dumitru Chesov, Mihai Parnov**

Academic adviser: Victor Botnaru, M.D., Ph.D., Professor

State Medical and Pharmaceutical University "Nicolae Testemitanu", Chisinau, Republic of Moldova

The objective of the study was to describe clinicopathological, microbiological and radiological characteristics of 15 patients who died following 2009 AH1N1 – associated pneumonia. As materials and methods were reviewed clinical, radiological, microbiological, and pathological datas (with emphasis on the pulmonary pathology findings) of 15 fatal cases of 2009 A H1N1 associated pneumonia hospitalised between November 2009 and January 2010 in Republican Clinical Hospital (RCH), Chisinau, Republic of Moldova. Most of the 15 decedents - 13 (86,6%) - were women (2 of whom were pregnant and 2 postpregnant). The mean age in the reviewed cases was 37,4

years. Comorbidities were presents in 10 cases, most frequent being hypertension (6 cases) and obesity (4 cases). The mean time from onset of symptoms to admission RCH was 6,5 days (range 3-13). The mean time from onset of symptoms to death, and from hospitalization to death was 16,91(range 3-27 days) and 10,39 days (range 3 hours-23 days) days respectively. All patients had clinical criteria for SDRA and required mechanical ventilation during the first 24 hours of hospitalization. Chest radiographs demonstrated, in all cases, bilateral, confluent, patchy opacities with subtotal or total extent. In 3 cases was detected spontaneous pneumotorax. Bacteriological exam in 7 of 8 sputum specimen revealed *Pseudomonas aeruginosa*. Histopathologic changes consist of focal to extensive diffuse alveolar damage (DAD) in 12 patients often associated with marked hyaline membrane formation. Four of these 12 DAD cases showed only acute DAD. Three of 12 cases showed acute and organizing DAD. Five of 12 cases had fibrosing and organizing DAD. Autopsy evidence of mixed bronchopneumonia (viral + bacterial), predominantly with total extent, were observed in all decedents. In 11 cases was present predominantly a purulent exudate and in 4 cases - predominantly hemorrhagic. Acute desquamative tracheobronchitis was observed in all patients. In 10 of these cases was found a serohemorrhagic component, in 3 cases a fibrinopurulent component and necrotizing one in 2 cases. Desquamative bronchiolitis with metaplasia of bronchial epithelium were observed in 3 cases. Serofibrinous pleurisy was found in 6 decedents. In conclusion we say that pulmonary pathological changes in fatal cases, caused by 2009 A H1N1 influenza virus, were similar to those described in the past pandemics. Superimposed bacterial infection of the respiratory tract was common. Comorbidities and pregnancy can be risk factors for death.

## Current Concepts in the Treatment of Hepatopulmonary Syndrome

**Olga Ciobanu**

Academic adviser: Eugen Tcaciuc, M.D., Ph.D., Associate Professor  
State Medical and Pharmaceutical University "Nicolae Testemitanu", Chisinau, Republic of Moldova

The aim of the present review is to cover various aspects of treatment of pulmonary dysfunctions in patients with hepatopulmonary syndrome (HPS), which represents important complication to cirrhosis and portal hypertension. For the articles and reviews about pulmonary dysfunction and it treatment in HPS was searched HINARI and MedLINE. The keywords were: pulmonary dysfunction in HPS, treatment of HPS. Multiple medical therapies have been investigated for the treatment of HPS in small studies but with low answer to medical therapy. An investigation into the efficacy of pentoxifylline, a nonspecific phosphodiesterase inhibitor that is recognized to block effects mediated by TNF- $\alpha$  in inflammatory and endothelial cells, has been shown improvement of intrapulmonary vasodilatation and gas exchange abnormalities. Other studies have looked at the contribution of somatostatin analogs, amiltrine, indomethacin and blockers of AT-II like losartan show benefits in arterial oxygenation. Liver transplantation is considered to be the definitive treatment of HPS with often successful reversal of hypoxemia; however other treatments have been trialed about mediators (nitric oxide) disorder in lung vessels and block synthesis of vasodilatationvasoconstrictive substances at liver level. Currently, no effective medical therapies for the hepatopulmonary syndrome exist, and liver transplantation is the only successful treatment. It is necessary to study efficiency of the new drugs in lung vascular disorders in liver cirrhosis.