Abstract:

Studying Electrocardiography and Echocardigraphy findings,serum level of IL6 and serum level of ProBNP in COPD patients.

Background:

Chronic abstructive pulmonary disease(COPD) is forth major of chronic morbidity and mortality through out the USA and more than sixteen million patients involved to this illness.Serum level of IL6 in the patients with COPD is increased and also IL6 CAN Predict the amount of morbidity and mortality in these patients.Serum of ProBNP is useful for predicting of HF,severe increase of ProBNP level can indicant the heart failure and pulmonary hypertension in COPD patients. increase of severity of COPD cause the abnormal findings increasing in electrocardiography of these patients.Echocardiography is an non invasive diagnostic way for COPD patients.The purpose of this study was to study Electrocardiography ,echocardiography,serum level of IL6 and ProBNP in COPD patients.

Materials and methods:

This descriptive study was carried out in patients who came to Kosar center of Ardebil.With symptoms and spirometry,lung specialist diagnosed Chronic abstructive pulmonary disease for them,after primary inspection,we filled CAT questionary and other questionarie about history of patient.For each patient we did Electrocardiography and Echocardiography and measured serum level of IL6 and ProBNP.In this study carried out on 82 COPD patients and because of the lack of competition of some patients,only 69 patients had Electrocardiography and Echocardiography.

Results:

In this study 27 patients(32.9%) were female and 55 patients (67.1%) were male.29 patients (35.4%) were in the range of 46-60 years old and 53 patients (64.3%) were older than 60 years old,4 patients (5%) were in GOLD stage I and 33 patients (40%) were in GOLD stage II and 31 patients (38%) were in GOLD stage III and 14 patients (17%) were in GOLD stage IV,30 patients (43.47%) had low voltage in ECG,7 patients (10.14%) had ST section changes in ECG,20 patients (28.98%) had minus T changes in V1-V6 IN ECG,4 patients (5.8%) had RVH in ECG,31 patients (44.92%) had Poor R progression,20 patients (28.98%) had mild RA enlargement and 11 patients (11.94%) had moderate RA enlargement and 14 patients (20.3%) had severe RA enlargement in ECG,3 patients (3.43%) had TR in echocardiography,1 patient (1.45%) had RVH in echocardiography,1 patient (1.44%) had mild PAP (25-34.99mmHg) and 1 patients (1.44%) had moderate PAP (35-44.99mmHg) and 1 patient (1.44%) had severe PAP (>45mmHg), There was no significant difference between the average serum level of IL6 and blocking air ways severity(P=0.128). There was no significant difference between the average serum level of ProBNP and blocking air ways severity(P=0.633). There was no significant difference between the average serum level of IL6 and two groups with and with out IHD(P>0.05). There was significant difference between the average heart rate in rest time and blocking air ways severity (P=0.029). There was no significant difference between the average of RV enlargement and blocking air ways severity(P=0.951). There was no significant difference between the average of LVEF and blocking air ways severity(P=0.662). There was slight significant difference between the average right axis deviation and blocking air ways severity(P=0.093).

Conclusion:

In this study electrocardiographic findings in COPD patients were mild,echocardiographic finding in mild to moderate COPD patients were few and serum level of IL6 and ProBNP in blocking air ways severity in this study were not effective.

Key Words: Chronic abstructive pulmonary disease(COPD),IL6,ProBNP.