Methods: the study population consisted of 90 asymptomatic diabetic nor-
metensive patients (group 1) and 90 age- and sex-matched control subjects
(group 2). All included subjects had no evidence of hypertension, valvular and
sclerotic heart diseases. Coronary heart disease was excluded in all diabetic
patients by non-invasive testing. Conventional echocardiography and tissue Dop-
pler imaging (TDI) analysis were performed in all patients and healthy controls.

Results: LV diastolic diameter, LV wall thickness and LV ejection fraction
were similar in both groups. The mitral annulus systolic velocities measured by
TDI were significantly decreased in diabetic patients compared to controls
but remained within the normal range. However, mitral annulus early diastolic
velocities (Em) measured by TDI were markedly reduced in diabetic patients
(7.6±1.3 cm/s vs. 11.9±1.6 cm/s, p<0.01) with higher ratio of early diastolic transmi-
tral pulsed Doppler E to Em (E/Em) velocities (15.2±1.4 vs. 8.1±1.8, p<0.01) suggesting impaired LV diastolic function. Among diabetic patients,
impaired diastolic LV function is significantly pronounced in the subgroup
with increased duration of diabetes (>10 years).

Conclusion: diastolic LV function may deteriorate in asymptomatic patients
with isolated diabetes mellitus and worsens with longer disease duration.

082
Right ventricular diastolic dysfunction in patients with previous
pulmonary embolism
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Objectives: To assess right ventricular (RV) characteristics and function in
asymptomatic patients with previous pulmonary embolism (PE).

Methods: We enrolled 30 asymptomatic patients with previous PE
(group 1) and 30 age- and sex-matched healthy controls (group 2). Included
subjects had no evidence of valvular or ischemic heart diseases, and no
chronic pulmonary diseases. All included patients were recalled one year after
the PE episode for echocardiographic assessment. We used standard echo-
cardiography and tissue Doppler imaging.

Results: We observed no difference in left ventricular ejection fraction
between the 2 groups (64±4% vs. 65±5, NS). Also RV diastolic diameter, RV
ejection fraction, the Tei index, the tricuspid annular plane systolic excursion
and the tricuspid annulus systolic velocities were similar in both groups. In
addition, there is no difference in pulmonary arterial pressures between the
2 groups. However, tricuspid annulus early diastolic velocities were markedly
reduced in group 1 patients (~7.9±1.6 cm/s vs. ~12.3±1.8 cm/s, p<0.01) with
lower ration of early to late diastolic velocities (0.78±0.19 vs. 1.24±0.25,
p<0.01) reflecting impaired RV diastolic function in patients with previous
pulmonary embolism.

Conclusion: Despite the absence of pulmonary hypertension, our study
shows the presence of a persistent subclinical RV diastolic dysfunction later
after a pulmonary embolism episode.

083
Medical hypothesis: heart rate on admission and CRP are correlated,
in acute pericarditis: a link between heart rate and pericardial inflammation?
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Introduction: Rest is usually recommended in acute pericarditis, as it
could help to lower heart rate (HR) and contribute to limit "mechanical
inflammation". Whether HR on admission could be correlated and perhaps
participate to inflammation has not been reported.

Methods: Between March 2007 and February 2010, we conducted a retro-
spective study on all patients admitted in our center for acute pericarditis.
Diagnosis criteria included 2 among the following: typical chest pain, friction
rub, pericardial effusion on cardiac echography, or typical ECG findings. Pri-
mary endpoint was biology: CRP on admission, on days 1, 2, 3, and especially
peak. We evaluated also recurrences and clinical events during hospitalization
and at one month.

Results: We included 73 patients. Median age was 38.0 y (CI 25-75%:
28.0±51.0) and median hospitalization duration was 2.0 d (1-3.0), 27% of the
patients presented pericardial effusion. Heart rate on admission was 88.0 bpm
(CI 25-75%: 76.0-100.0) and on discharge 72.0 (65.0-80.0)). Heart rate on
admission was significantly correlated with CRP on admission (r=0.34, n=69;
p=0.004), CRP peak (r=0.54; n=61; p=0.0001), CRP on discharge (r=0.32;
p=0.021) and temperature on admission (r=0.40; n=59; p=0.01). Multivariate
analysis showed that HR on admission is associated with an elevated CRP
peak, independently of temperature on admission. Fever was scarcely
observed (19.5%), and was neither correlated to HR nor CRP, after multivari-
ate analysis.

Conclusion: In acute pericarditis, HR on admission is independently cor-
related with CRP levels. These observations could suggest a link between HR
and pericardial inflammation.

Key words: Acute pericarditis, CRP, inflammation, heart rate, pericar-
dium, cardiac frequency

084
Aetiology of Pulmonary Hypertension in patients older than 70 years
with preserved left ventricular function and no valvular heart disease
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Introduction: Pulmonary Hypertension (PH) is frequent among elderly
patients and frequently due to severe valve diseases or heart failure with
deleted left ventricular (LV) ejection fraction. The part of other causes is
less known. The aim of this prospective study is to determine the aetiology of
PH in older patients with preserved LV ejection fraction and no valve disease.

Methods: We included prospectively patients over 70 years of age with
LV ejection fraction >50%, no valve disease. PH was suspected during echo-
cardiography and confirmed by pressure measurements during right heart cath-
ereterization. Each patient had complementary tests (blood tests, pulmonary
function tests, ventilation perfusion lung scan, chest CT, abdominal ultrasound
scan), conditioned by the haemodynamic characteristics of PH, in order to
determine its cause.

Results: Between November 2010 and November 2011, we included
26 patients (17 women), 78±7-years old, with peak systolic pulmonary pres-
sure of 68±15mmHg.

Nine patients (35%) had a precapillary PH. Among them, PH was the consequence of thromboembolism (n=3), idiopathic (n=3), due to a connective
tissue disease (n=1) and to a chronic lung disease (n=2).

Six patients (23%), all with LV distolic dysfunction, had a post capillary
PH. Two of them had previously undergone cardiac surgery for atrial septal
defect and mitral valve remplacement.

Eleven patients (42%) had a reactive post capillary PH. PH was idiopathic
in 2 cases and drug induced for one patient. We found 2 connective tissue dis-
ces, one thromboembolic disease, 2 chronic lung diseases. Four patients had
a LV distolic dysfunction. One patient had two causes of PH. When LV dia-
stolic dysfunction was the only cause of PH, it was always associated with
persistent atrial fibrillation.

Conclusion: Reactive post capillary PH is predominant in elderly patients
with preserved systolic LV function and no valve disease. The main cause of
PH is diastolic dysfunction associated to atrial fibrillation.