An ECG every 3 years is enough to follow patients with myotonic dystrophy

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Patients (pts) with type I myotonic dystrophy (MD) were reported as at high risk of arrhythmias, mainly conduction disturbances. The purpose of the study was to evaluate the mean time of change of noninvasive investigations and to propose recommendations for the follow-up of patients with MD.

Methods: 129 asymptomatic pts, mean age 41±14 years, with MD, were consecutively recruited. ECG, left ventricular ejection fraction (EF) determination, Holter monitoring, were obtained and repeated each year in pts without conduction abnormalities. Electrophysiological study (EPS) was performed in 51 pts. Follow-up duration ranged from 1 to 23 years, with a mean duration of 10 ± 5 years.

Results: At initial study, ECG and Holter monitoring were normal in 72 and 67 pts, respectively; EF was normal in all but 4 pts (60±10.5 %). At the last study, the ECG did not change in 65 % of pts; in 49 pts with normal ECG, the ECG remained normal in 32 pts; first degree (d) AV block (B) developed in 11 pts, left hemiblock (HB) in 3 pts, complete bundle branch block (BBB) in 3 pts; 3 pts with a BBB developed another localization of conduction disturbance. HV increase was noted in patients with first d AVB and HB or BBB, and never in pts with normal ECG. Initially normal Holter monitoring (n=61) remained normal in 44 pts (72 %); sinus pauses were noted in 6 pts and non sustained ventricular tachycardia in one pt. In 19 pts with initial abnormalities, Holter monitoring became normal in 10 of them. LVEF did not change significantly (61±11 at first study, 58±11 % at 2nd study). The ECG modifications developed after a mean follow-up of 5 ±1 years. The shorter time of the occurrence (61±11 at first study, 58±11 % at 2nd study). The ECG modifications developed after a mean follow-up of 5 ±1 years. The shorter time of the occurrence (61±11 at first study, 58±11 % at 2nd study). The ECG modifications developed after a mean follow-up of 5 ±1 years. The shorter time of the occurrence (61±11 at first study, 58±11 % at 2nd study).

Conclusions: HV increase was noted only in patients with abnormal ECG. No change of ECG was noted in patients with normal ECG before 4 years. The repetition of ECG every 3 years is recommended and EPS should be indicated when ECG became abnormal.

Does the physical examination still have a role in patients with potential chronic heart failure?

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Objective: Define the prognosis value of the congestive clinical signs of heart failure (CHF) in an outpatient clinic compared to other clinical variables.

Background: Clinical examination is non-specific to diagnose CHF. However the prognosis value of the clinical signs of CHF is unknown.

Methods: Analysis of referrals to a community clinic of suspected chronic heart failure with a clinical examination. Clinical signs of CHF were defined as no sign, fluid retention (FR: oedema, ascites, hepatomegaly, jugular vein distension), lung crackles (LC) and their combination (FR+LC). Systolic heart failure was defined as LVEF<45% (S-HF), CHF with normal ejection fraction (HFNEF) as LVEF≥45% and NT-proBNP<50pmol L−1 (HeFNEF), others were defined as No-HF.

Results: Of 1881 patients referred, 853 patients had S-HF, 321 had HeFNEF and 707 No-HF. Their median (IQR) age was 72yrs (64-78), LVEF was 47% (35-59) and 40% were women. 1207 patients had no clinical signs of CHF of whom 41% were SHF and 16% HeFNEF; 85 had LC of whom 43% were SHF and 20% HeFNEF; 417 had FR of whom 49% had S-HF and 21% HeFNEF and 172 had LC+FR of whom 43% had S-HF and 16% HeFNEF. Patients with LC+FR were more breathless, had more frequently an ischaemic heart disease and had a lower ejection fraction and a lower right ventricle function measured by the tricuspid annular plane systolic excursion. During a median (IQR) follow up of 64 (44-76) months, mortality was 40%. In multivariable analysis, increasing age, NYHA class, heart rate, LC+FR, FR, ischaemic heart disease and chronic obstructive pulmonary disease predicted an adverse prognosis; increasing diastolic blood pressure and female sex predicted a better outcome. Using Kaplan Meier curves, LC and FR indicated a similar bad prognosis, LC+FR indicated the worse prognosis when all the patients were considered (log Rank=185, p<0.0001), or the three HF groups separately.

Conclusion: Clinical signs of CHF are powerful predictors of prognosis in outpatient clinic. Presence of fluid retention and lung crackles showing the worse prognosis. These clinical signs should be assessed systematically to evaluate the prognosis in symptomatic patients.

Patterns of acute heart failure in nonagenarians

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Background: Since heart failure (HF) often occurs in subjects >70y old and the population of Western countries is getting older, the incidence of HF is expected to dramatically increase in the future. However, limited information is available on HF in the extreme elderly.

Methods: We retrospectively studied patients >90y old patients admitted to our hospital for acute HF between 2007 and March 2010. Patients with incomplete clinical records were excluded. Main foci were : epidemiological data, initial presentation, results of routine biological and imaging tests and clinical outcome.

Results: 56 patients (mean age 94 [range 91-97], 60% female) were included. Cardiovascular risk factors were hypertension (75%), hypercholesterolemia (16%) and diabetes (7%). 56% of patients had no underlying cardiomyopathy while 16% had coronary artery disease, 13% had valve disease, 5% had hypertension and 10% had cardiomyopathy due to multiple factors. On presentation, mean creatinine was 163 mmol/L [79-317], hemoglobin was 11.5 g/dL [9.9-12.4], and BNP was 2617 pg/mL [128-14.574]. Mean ejection fraction was 46% [34-58]. The 3 main precipitating factors of acute HF were hypertension (23%), infection (23%) and acute coronary syndrome (20%). In 15% of patients, no reason for acute decompensation could be identified. More than 50% of patients were admitted to the ICU, 30% required breathing assistance and 5% required inotropic drugs. Average hospital stay was 6 days [2.9-9.5]. 63% of patients were discharged home; hospital mortality was 20%. Medical treatment at discharge included diuretics (90%), ACE inhibitors (80%) and beta-blockers (45%).

Conclusion: Acute HF in nonagenarians is associated with poor prognosis. Main characteristics are a preserved ejection fraction, no obvious underlying cardiomyopathy and infection and hypertension as precipitating factors.
and 33% were diabetic, and 61.9% were in NYHA class II, and 23.8% were in NYHA class III. The median of 6min walk test was 118 m. The mean LVEF was 46% (40-69). Hypertensive (44.4%) and Ischemic heart disease (17.4%) remain the two most frequent etiology. During a median follow up of 32 months, mortality was 16%. By univariable analysis, NYHA class; 6min walk distance; atrial fibrillation; right ventricular dysfunction and systolic pulmonary artery pressure (sPAP) were associated with an adverse prognosis. In multivariable analysis, increasing age, NYHA class, and renal failure were predictors of adverse prognosis; beta-blockers treatment, increasing Hb and female sex were predictors of a better outcome.

**Conclusion:** As several studies, clinical and biological variables were more powerful predictors of outcome in HFPEF than echocardiographic variables which are recommended to identify diastolic function.

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**History of breast cancer in women with acute myocardial infarction.**

**Data from the RICO survey**

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**Background:** Breast Cancer (BC) is the most frequent cancer, whereas CV diseases such as myocardial infarction (MI) are the leading cause of death. BC and MI share common major risk factors such as obesity. We aimed to analyse the characteristics of women with a history of BC in the setting of acute MI.

**Patients and methods:** Among the 2087 consecutive women included between 01/01/2001 and 31/12/2009 in the French regional RICO survey database, 73 (3%) had a history of BC. Each woman with prior BC (n=73) was matched, with respect to age, with 5 women without prior BC (n=365).

**Results:** Women with prior BC were 74 (65-80) year old. Time from BC diagnosis to acute MI was 10 (3-16) years. Most BC had been treated by surgery and/or radiation therapy, and 37% had also received hormone therapy. CV risk factors (smoking, obesity), type of MI, acute management and in-hospital complications were similar for the 2 groups. Chronic statin use and admission blood lipids were also identical for the 2 groups. However, median admission CRP levels were lower in women with a history of BC (1.00 (1.0-9.8) vs. 5.6 (2.8-13.6) mg/l, respectively, p<0.001). Strikingly, peak CK and troponin Ic levels, the latter of which reflects infarct size, were dramatically lower, by 40%, and 26%, respectively, in the BC group (310 (136-777) vs. 501 (198-1324) U/l, p=0.022 and 9.20 (3.33-19.55) vs. 12.36 (2.77-41.00) µg/l, p=0.166 respectively). By linear regression analysis, prior BC remains an independent predictor of reduced peak CK (B(SE)=-626.8(260), p=0.017), 501 (198-1324) UI/l, p=0.022 and 9.20 (3.33-19.55) vs. 12.36 (2.77-41.00) µg/l, p=0.166 respectively). By linear regression analysis, prior BC remains an independent predictor of reduced peak CK (B(SE)=-626.8(260), p=0.017), even when adjusted for potential confounders (anterior wall location, STEMI, multivesel disease, time to admission).

**Conclusions:** In women currently admitted for acute MI, a non-negligible proportion had prior BC. Women with prior BC had a similar risk profile and lipid levels to those in women without prior BC. However, they were characterized by a lower level of inflammation and smaller infarct size than their counterparts without BC. Further investigations are ongoing to determine whether hormone therapy such as oestrogen receptor modulators could account for the observed effects in this population.

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**Pharmacological treatment of chronic heart failure in the region of Marrakech : where are we compared to the recommendations?**

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**Introduction:** heart failure (HF) is a frequent pathology which profited from important therapeutic progress. The respect of the international recommendations is essential in order to optimize its management.

The objective of this study was to evaluate the adequacy of our practice with the international recommendations concerning the pharmacologic management of chronic HF.

**Patients and methods:** It is about an observational prospective study over six months including of the patients followed in cardiologic consultation for chronic HF. The data collected the demographic elements (old, sex, ...) elements concerning HF (class NYHA, etiology, number of decompensation during the previous year...) and data concerning the pharmacological treatment prescribed (molecules, doses, tolerance of the treatment, the control of the side effects by the electric and biological complementary examinations.). The adequacy of this treatment compared to the French recommendations of 2007 was evaluated by a cardiologist senior who was not responsible for the follow-up of the patient.

**Results:** Hundred two patients were included (42 women and 60 men with a sex ratio of 1.15). The Middle Age was of 56.9 + 26.1 years. All the patients (100%) were treated by the diuretic, 78% of the cases were under converting enzyme inhibitors (ACE), 85% of the patients were under β-bêlatéguides (BB), 75% of the patients were put under the triad diuretic-ACE- BB. The digitaliques was prescribed at 21.4% of the patients who presented a chronic cardiac failure in arrhythmia. The recommended target doses was noted in 35.7% for ACE inhibitors, 25% for BB and 14.3 for diuretics.

**Conclusion:** Our study reveals an insufficient adequacy of our practice with the international recommendations. Improving the management of HF based on the knowledge of the various therapeutic classes recommended in the HF and their target doses. The creation of a unit of HF seems essential then.