

The purpose of the research is to determine the gender peculiarities of lipid profile changes and the state of metabolic oxygen-dependent reactions in patients with AMI accompanied with NASH.

Methods: 59 men and 36 women with AMI accompanied with NASH were examined. All women had menopause. The amount of troponin, creatine phosphokinase, transaminases was determined in blood of all patients. Also the data of liver ultrasound and liver biopsy were analyzed. The state of metabolic oxygen-dependent reactions was determined by spectrophotometric method; the levels of malonic dialdehyde (MDA) and diene conjugates (DC) were analyzed.

Results: Women had higher indexes of MDA (+10,2%, $p=0,028$) and DC (+15,2%, $p=0,009$) in comparison with men. Also, a decreased activity of superoxide dismutase and ceruloplasmin was revealed in women (-12,7% and -3,3% respectively, $p<0,05$). Disorders of blood lipid profile were determined in patients of both groups. However, women had reliably higher level of cholesterol (+15,4%, $p=0,027$), triglycerides (+22,8%, $p=0,003$) and low-density lipoproteins (+15,8%, $p=0,015$). Besides, the level of high-density lipoprotein in women was lower than in men (-17,6%, $p=0,022$).

Conclusions: Women with AMI accompanied with NASH were characterized by more significant derangements of lipid profile and higher activity of metabolic oxygen-dependent reactions than men. The mentioned above changes in women were probably caused by loss of estrogen protection due to menopause. Such changes suggest the need in more intensive hypolipidemic and antioxidant therapy in women with AMI accompanied with NASH.

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Surgical versus transcatheter closure for post-infarctus ventricular septal defect

Philippe Aldebert (1), Brissy Olivier (2), Alberto Riberi (3)
(1) *Hôpital Timone enfant, cardiologie pédiatrique, Marseille Cedex 5, France* – (2) *CHU hôpital Timone adulte, maladie coronaire, Marseille, France* – (3) *hôpital Timone adulte, chirurgie cardiaque, Marseille, France*

Introduction: Post infarction ventricular septal defect (PIVSD) is a difficult to treat condition. Surgical closure is the first intention therapy but mortality rates remain high at 20-87% in current series. Transcatheter closure is a promising alternative although comparative studies are scarce. We describe our experience in 3 centers where surgery and transcatheter closure are available.

Method: Between April 2006 and April 2012, 18 consecutive patients with PIVSD were initially treated surgically ($n=10$, group 1) or percutaneously ($n=8$, group 2). Three patients received both treatments.

Results: Thirteen patients (72%) were admitted 12 hours or more after the onset of acute myocardial infarction (AMI) and 13 were in cardiogenic shock, with intra-aortic balloon pump 10 (55%) cases. Twelve (67%) had emergency percutaneous coronary intervention. The median delay between AMI and intervention was 18,5 (3 to 828) days without difference between the 2 groups. Twelve patients (67%) underwent successful closure of their PIVSD without difference between surgical and percutaneous closure. A residual PIVSD was present in 12 cases, necessitating reintervention in 3 cases (17%). The overall mortality rate was 28% (5/18), including 3 (37,5%) cases after transcatheter and 2 (20%) after surgical closure (p NS). However, early (<20 days after AMI onset) percutaneous treatment was significantly associated with intra-hospital mortality ($p=0,01$).

Conclusion: Surgery remains the first intention therapy for PIVSD when closure is performed within 20 days after AMI onset. Later, transcatheter closure provides similar results and can be considered as an interesting alternative.

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Pulmonary embolism: the value of transthoracic echocardiography

Wejdene Ouechtati, Hedi Baccar, Saoussen Antit, Leila Bezdeh, Slim Sidhom
Hôpital Charles Nicolle Tunis, cardiologie, Tunis, Tunisie

Introduction: Acute pulmonary embolism (PE) remains a life-threatening disease and one of three major disease entities with chest discomfort seen in

the emergency room. Despite progress in imaging techniques and knowledge of this disease, its medical diagnosis is one of the most difficult to achieve. The clinical assessment of PE probability remains central to the diagnosis and evaluation. Presently, accepted diagnostic modalities for the confirmation of PE include V/Q scanning, chest CT, and standard angiography. All approaches have limitations. Because echocardiography is noninvasive, provides rapid bedside results. It is an attractive imaging modality to diagnose PE.

Purpose: The purpose of this study is to assess the contribution of transthoracic echocardiography (TTE) in the clinical setting of PE.

Results: Eighteen patients were included. There were 7 men and 11 women. The mean age was 57 years [28; 80]. TTE was performed in all patients within the first 24 to 72 hours of admission. The diagnosis of PE was confirmed by standard angiography in all cases. Tricuspid regurgitation was the most common TTE finding (16 of 18), followed by dilated right ventricle (15 of 18), pulmonary hypertension (11 of 18), paradoxical interventricular septal motion (7 of 18) and right ventricular hypokinesis (2 of 18). TTE revealed thrombi inside the right-sided heart cavities in 3 patients. The thrombus was detected at the apex of the right ventricle in the first case, at the right atria in the second case and many thrombi were objectified even at the right atria and ventricle, at the inferior vena cava and at the left pulmonary artery in the third case.

Conclusion: Transthoracic echocardiography may reveal findings that strongly support hemodynamically significant PE. In the majority of cases TTE provides only indirect signs of PE. It could, though, far less frequently visualise thromboembolic material inside the right-sided heart cavities. Direct visualisation of the thrombus, although confirming PE, remains an exceptional finding. This may be useful for prompt decision making in patients with haemodynamic compromise considered for thrombolysis or embolectomy.

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Women in the intensive unit care of cardiology: morbidity and mortality study

Amira Zaroui, Mohamed Sami Mourali, Rachid Mechmeche, Sinda Hannachi, Faten Elayech
Hôpital universitaire la Rabta, exploration fonctionnelles et réanimation, Tunis, Tunisie

The aim of this observational study that includes 800 consecutive patients admitted in our unit intensive care of cardiology (UIC) is the evaluation of the cardiac pathology in women, and the morbidity and mortality of them compared to men.

Results: The women represent 25% of patients, they were older (mean age 66 ± 5 years versus 56 ± 7 years in men, $p=0,05$), and we observed more diabetes 48.6% vs 38%, $p=0,003$. The diagnostic of acute coronary syndrome without ST elevation were relieved in 43% of women vs 24% in men, $p=0,03$. STEMI were more frequent in men (24% vs 32%), the aortic ventricular block were more frequent in women 16.8% vs 5%, $p=0,002$. We observed in women patient a higher incidence of cardiac arrest resuscitated (2.5% vs 1.7% $p=0,05$) and cardiac shock 3.2% vs 0.7% , $p=0,004$. Inside a better left ventricular ejection fraction ($47 \pm 15\%$ vs $40 \pm 14\%$, $p=0,03$), they presented more hemodynamic complication (6% versus 2.8% in men, $p<0,01$) and more rhythmic complication (8% versus 4.5% in men, $p<0,01$) Angiographic Coronarography were performed in 61% of women compared to 77% in men. A coronary revascularization by percutaneous transluminal coronary angioplasty were performed in 9% of women vs 11.5% in men, and only 9.6% of women benefited of surgical revascularization versus 14.3% of men, $p=0,004$. Finally, we observed more mortality in our study in women patients (3.2% vs 1.8%, $p=0,002$). The predictive factors of mortality were the level of the CRP (odds ratios and 95 percent confidence intervals =7.6 , 1.1-14.3, $p=0,013$) and the female gender (OR at 3.8, CI at 95% a =1.2-5.4, $p=0,0013$) and the LVEF (OR at 1.4, CI aT 95% =1.1-7.8, $p=0,012$), but only the female gender was in independent predictive factor of mortality in IUC of cardiology using multiple logistic regression to estimate the adjusted odds ratio (OR adjusted a 1.7, CI at 95% =1.11- 5.4, $P= 0,002$).

Conclusion: The women presented only the quart of the patients admitted in the intensive unit care of cardiology, but this population have a higher level of morbidity, hospital complication. More, the female gender in an independent predictive factor of mortality.