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THE IMPORTANCE OF TIMELY TREATMENT OF THE CAUSES OF HEART FAILURE ON THE EXAMPLE OF THE CLINICAL CASE

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Acquired heart disease complicated by chronic heart failure (CHF), which significantly impairs the quality of life of patients and worsens the prognosis and remains radical surgical treatment with implantation of prosthetic valve. On the example of a clinical case are shown and discussed the results of a late replacement of the mitral valve in patient with acquired heart defect.

KEY WORDS: prosthetic valve, heart failure, acquired heart defect

ВАЖЛИВІСТЬ СВОЄЧАСНОГО ЛІКУВАННЯ ПРИЧИН СЕРЦЕВОЇ НЕДОСТАТНОСТІ НА ПРИКЛАДІ КЛІНІЧНОГО ВИПАДКУ

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Набуті вади серця ускладнюються хронічною серцевою недостатністю (XCH), яка значно порушує якість життя пацієнтів та погіршує прогноз. Радиальним залишається хірургічне лікування з імплантацією штучних клапанів.

На прикладі клінічного випадку демонструються та обговорюються результати пізньої заміни мітрального клапану у пацієнтки з набутою вадою серця.

КЛЮЧОВІ СЛОВА: протезування клапану, серцева недостатність, набута вада серця

ВАЖНОСТЬ СВОЕВРЕМЕННОГО ЛЕЧЕНИЯ ПРИЧИН СЕРДЕЧНОЙ НЕДОСТАТОЧНОСТИ НА ПРИМЕРЕ КЛИНИЧЕСКОГО СЛУЧАЯ

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Приобретенные пороки сердца осложняются хронической сердечной недостаточностью (ХСН), которая значительно нарушает качество жизни пациентов и ухудшает прогноз. Радиальным остается хирургическое лечение с имплантацией искусственных клапанов.

На примере клинического случая демонстрируются и обсуждаются результаты поздней замены митрального клапана у пациентки с приобретенным пороком сердца.

КЛЮЧЕВЫЕ СЛОВА: протезирование клапана, сердечная недостаточность, приобретенный порок сердца

INTRODUCTION

Chronic heart failure (CHF) is an abnormality of cardiac structure or function leading to failure of the heart to deliver oxygen at a rate commensurate with the requirements of the metabolizing tissues, despite normal filling pressures (or only at the expense of increased filling pressures) [1]. Chronic heart failure (CHF) developing on the background of

acquired heart defects can be cured only by surgery – a valve replacement.

Even in the event of a delay in seeking surgical treatment, this tactic is optimal for the stabilization stage heart failure and to prevent progression of the disease.

It's much better to do replacement of valve later and prevent progression of CHF stage than not to do it at all [2].

The need for timely treatment, we demonstrated on the example of clinical case.

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OUR PATIENT

70 years old woman, pensioner, worked as a salesman, city resident. Date of admission: 10 – October – 2015.

COMPLAINTS

Fatigue, dyspnea (paroxysmal nocturnal dyspnea (PND)), tachycardia, palpitation, nocturia, dizziness.

ANAMNESIS MORBI

These symptoms bother the patient more than 10 years. In 2012 complaints (symptoms) were worsened, because of this, the patient admitted to Institution of general and urgent surgery V. T. Zaycev NAMS of Ukraine. After lab-tests and instrumental examination the diagnosis was: Combined mitral valve disease with predominance of insufficiency.

Results of echocardiography before surgery (04.10.2012): Combined mitral valve disease with predominance of insufficiency (MV Hg 3+), S of MV = 2.8 cm^2 . Dilatation of left atrium ($4.3 \times 5.2 \text{ mm}$) and left ventricle. Pulmonary hypertension (Hg 40 mm). EF = 77%.

09.10.2012 the patient underwent mitral valve replacement with mechanical prosthesis St. Jude Medical Nº 27. The patient has taken all drugs that were prescripted after the surgery. This hospitalization is after increasing in data complaints.

ANAMNESIS VITAE

There was rheumatic fever attack in childhood. She had felt pain in the joins of lower extremities and got a temperature after sore throat. She don't remember which treatment had got. Heart murmur had detected in the survey in adulthood. Other infections, injuries, tuberculosis, sexually transmitted diseases were denied. Hereditary diseases are not identified. Allergological history is not burdened.

OBJECTIVE STATUS

General condition-moderate grave, Conciseness – clear, posture – active, body position – sitting on the chair. Patient can orientate herself in place, time, her personality. Height – 158 sm, weight – 63 kg, BMI – 25,2. Skin and mucosae are pale pink, with redness on the nose. Thyroid: no pathological changes. Skeleto–muscular system – deformity of the

chest after sternotomy. BR – 22–24/min. Lung percussion: intermediate below scapula angles from both sides. Lung auscultation: decreased vesicular breathing, wheezes inferior parts both sides. Borders of the heart: left border - outside of midclavicular left line on 2 cm. Heart auscultation: rhythmic, heart tones - muffled, tone of mechanical valve, accentuated S2 over pulmonary artery. Pulse rhythmic, 64 bits/min, BP 100/70 mm Hg. Abdomen: normal size, symmetric. Liver: liver margin is 1,5 cm below right rib cage. Spleen: normal. Pasternatsky symptom - negative from both sides. Edemas: absent. Varicose vein disease of lower extremities - absent. Stool: normal, everyday, dark color.

PLAN OF SURVEY IN THE HOSPITAL

Clinical blood test (CBT) and urine analysis, kidneys and liver function tests, electrolytes, lipid profile, INR – international normalized ratio, rheumatic factor, antistreptolysin O, electrocardiography(ECG), chest X-ray, echocardiography with Doppler.

RESULTS

Clinical blood test: Normal BC.

Urine analysis: Normal urine test.

Biochemistry test: The increased creatinine and decreased glomerular filtration rate (CKD-EPI GFR) that complies with chronic kidney failure stage 3.

Lipid profile: Hypercholesterolemia IIa type. Electrocardiography: Regular sinus rhythm with heart rate 59/min. Deviation of electric axis to the left. Left ventricular hypertrophy.

Chest x-ray: Hypoventilation of the lungs. Pulmonary congestion. Pulmonary hypertension.

Heart ultrasound: Status after mitral valve replacement (prosthetic valve) (2012). The prosthesis is functioning correctly.

COMPLETE DIAGNOSIS OF OUR PATIENT

Mechanical prosthesis of mitral valve bileaflet type (09/10/2012) about combined mitral valve disease with predominance of insufficiency. Congestive heart failure with preserved left ventricular pump function (ejection fraction = 76 %), III C functional class by NYHA. Chronic kidney failure Stage 3. Atherosclerosis. Hyperlipidemia IIa type.

TREATMENT

Dietary sodium and fluid restrictions should be implemented in all patients with congestive heart failure. Limiting patients to 2 g/day of dietary sodium and 2 L/day of fluid will lessen congestion and decrease the need for diuretics.

Warfarin 5 mg 1 time/day, spironolactone 25 mg 1 time/day, ramipril 2.5 mg 1 time/day, bisoprolol 2.5 mg 1 time/day, torasemide 10 mg 1 time/day, atorvastatin 40 mg 1 time/day.

CONCLUSIONS

There is 3 years after surgical treatment of patients with replacement of the mitral valve there was stabilization of heart failure without signs of involution.

Clinical case shows that it is better later surgery, than not to do it at all. For creative development of CHF is required, however, as possible earlier intervention.

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