Medical Expertise

"Development of the European Network in Orphan Cardiovascular Diseases"
„Rozszerzenie Europejskiej Sieci Współpracy ds Sierocych Chorób Kardiologicznych"

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CASE SUMMARY

The authors presented a case study of a 71 years old patient. Congenital heart disease had been suspected since infancy (abnormal heart murmur). Progressing impairment of physical exercise tolerance and dyspnoea on exertion has been observed since early childhood. Symptoms became more severe after the third decade of life. In August 2008, TTE revealed moderate MR with mild PR, mild TR, dilated MPA, preserved LVEF.

Subsequent TTE examinations showed progression of pulmonary and tricuspid regurgitations and elevated RVSP (up to 80 mmHg). In September 2013 – outcomes of pulmonological assessment suggested a possibility of pulmonary hypertension. Due to increased airway resistance in pletysmography ipratropium was prescribed. The patient was referred to DCVD for further evaluation. Cardiopulmonary exercise tests showed significant impairment of exercise tolerance. Transthorasic echocardiography showed additional flow between aorta and pulmonary artery. Angio-CT revealed persistent ductus arteriosus. Right heart catheterization showed elevated pressure in right pulmonary artery (68/24/39 mmHg). The pressure in aorta was 184/44/95 mmHg.

DISCUSSION

Patent ductus arteriosus (PDA) is a congenital heart defect with connection between the pulmonary artery and the aorta. It normally PDA closes spontaneously within 24 to 48 hours after birth, due to the increased oxygen tension and reduced prostaglandins levels. The incidence of PDA is approximately 1 in 2000 in full-term infants and consists 5 to 10% of all congenital heart disease in children. PDA is found twice as often in females than in males (1). In adulthood a PDA is not often encountered since it is usually discovered and treated during childhood. The mortality of untreated PDA in adults is estimated to be 1.8% per year (1).

PDA results in left ventricle enlargement. In cases of large PDA pulmonary pressure elevated and Eisenmenger's syndrome might be presented. In adults, calcification of the PDA

may cause a problem for surgical closure. Device closure is the method of choice in adult patients (2).

According to the ESC guidelines (2):

- PDA should be closed in patients with signs of LV volume overload
- PDA should be closed in patients with PAH but PAP <2/3 of systemic pressure or PVR <2/3 of SVR
- Device closure is the method of choice where technically suitable

EXPERT'S OPINION

The authors presented a case of a 71-year-old symptomatic patient, with untreated PDA. The patient has elevated pressure in pulmonary artery, however PAP is below 2/3 of systemic pressure. In my opinion this patient should be qualify for percutaneus device closure of PDA. After procedure patient should be monitored in specialized GUCH center. Regular echocardiographic evaluation should be performed .

CONCLUSION

The patient shoul be qualified for percutaneus device closure of PDA.

REFERENCES

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2. Grown-Up Congenital Heart Disease (Management of) ESC Clinical Practice Guidelines 2010.

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