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

25 year-old patient, male with congenital heart defect (great arteries transposition). He experienced surgical two-step correction: atrioseptostomy by Rushkinda metod in 1989 r and Senninga operation in 1990 r. He also experienced paroxysmal atrial fibrillation/flutter, in 2013 and 2014 r terminated by electrical cardioversion. In the past hypokaliemic state. ECHO showed: LVEF 45-50%, RVEF 60%. VO2 25,4 ml/kg/min. In ambulatory ECG sinus bradykardia down to 37/min, not numerous supraventricular and ventricular extrasystolic beats were noted. Patient was treated with Metoprololem 50 g a Day and parasympatycolithic drug Bellapan in various doses. It did not result in significant improvement. The drugs do not protect from tachyarrhythmia. The patient does not fulfill criteria for heart transplant. Now the therapeutic options are discussed, in this number also the invasive ones.

DISCUSSION

Due to the Senning operations carried out in the past, the access to arrhythmogenic substrate is troublesome (orificies of pulmonary veins). One should start from upgraded pharmacotherapy. It it will fail, the ablation sould be considered. Unfortunately the ablation will be technically difficult, since the access to anatomical left atrium would eventually be possibile retrogradely via aorta (the lead in this technique would have to be bent two times with the angles of 180°). In this patient, first of all, one should obtain significant quality of life improvement. This is why in the future the pacemaker implantation would probably be considered (the location and access of the leads is a subject of a real challange). Endocardial access to right ventricle is possible only via mitral valve. Initially 12-lead ambulatory long-lasting ECG should be carried out. In case of single monomorphic atrial ectopic site wchich initiates the atrial fibrillation paroxysms, one should consider mapping and ablation. (using retrograde aortic access to pulmonary veins ostiums). In case of electrical cardiac stimulation neccesity, the dual-chamber pacemaker should be implanted. Eventual transtoracal access via left atrial appendage is dangerous due to adhesions and the risk of massive bleeding.

Please fill in the literature review

EXPERT'S OPINION

First of All, the 12-lead ambulatory long-lasting (even 7 days) recording shoul be carried out. In case of single monomorphic atrial ectopic site wchich initiates the atrial fibrillation paroxysms, one should consider mapping and ablation. (using retrograde aortic access to pulmonary veins ostiums). The patient should be informed beforehand about expected low such an ablation efficacy (ccca 30%), and higher risk of complications. There are indications for cardiac pacing. Dual-chamber pacemaker is the proper option, with the Access to anatomical left ventricle.

CONCLUSION

Initially, the non-invasive strategy shoul be choosen. Taking into consideration limited ablation efficacy, the ablation should be postponed. However cardiac pacing will probably be neccessary, it should also be put off. One should start with carefull electrocardiographic diagnosis.

REFERENCES

Wytyczne dotyczące postępowania u chorych
z komorowymi zaburzeniami rytmu serca
i zapobiegania nagłemu zgonowi sercowemu
– wersja skrócona
Eksperci American College of Cardiology (ACC), American Heart Association (AHA)
i European Society of Cardiology (ECS) do spraw postępowania u chorych z komorowymi zaburzeniami rytmu i zapobiegania nagłej śmierci sercowej, we współpracy z European Heart Rhythm Association i Heart Rhythm SocietyProszę wpisać referencje

ACC/AHA/ESC guidelines for the management of patients with supraventricular arrhythmias - executive summary

A report of the American College of Cardiology/American Heart Association Task Force on Practice Guidelines and the European Society of Cardiology Committee for Practice Guidelines (Writing Committee to Develop Guidelines for the Management of Patients with Supraventricular Arrhythmias)

C. Blomström-Lundqvist, M.M. Scheinman, E.M. Aliot, J.S. Alpert, H. Calkins, A.J. Camm, W.B. Campbell, D.E. Haines, K. Kuck, B.B. Lerman, D.D. Miller, C.W. Shaeffer, W.G. Stevenson, G.F. Tomaselli

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Wytyczne dotyczące postępowania
u chorych z migotaniem przedsionków
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