

Neinvazivna elektrokardiologija
Non-invasive electrocardiology

3.1.

MITRAL VALVE PROLAPSE WITH MILD MITRAL REGURGITATION AS A CAUSE OF NON-SUSTAINED VENTRICULAR TACHYCARDIA: CONSERVATIVE OR INVASIVE APPROACH?

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Introduction: Although non-sustained ventricular tachycardia associated with valvular heart disease is thought to be a benign disorder which does not change the prognosis of valvular heart disease, including mitral regurgitation, if systolic function is preserved, there is still certain concern among cardiologists that it can progress towards sustained ventricular tachycardia and the sudden cardiac death.

Case report: A 78-year-old male patient was admitted to our hospital due to the symptoms of fatigue, weakness and palpitation that started a few weeks earlier. He suffered from hypertension and dyslipidaemia for years. Resting electrocardiogram (ECG) showed couplets of premature ventricular contractions (PVC). Holter-ECG registered 6405 single PVC, 354 couplets PVC and 46 triplets PVC. Transthoracic echocardiography revealed mitral valve prolapse (MVP) with mild mitral regurgitation (MR2+) with preserved ejection fraction (LVEF 60%). Transeosophageal echocardiography confirmed MVP with MR2+ in the central jet. Coronary angiography showed normal coronary artery anatomy without significant stenosis. We decided to apply conservative approach with dual antiarrhythmic therapy (amiodarone and bisoprolol). Control Holter-ECG five days later showed significantly lower number of single and couplets PVC and the absence of triplets PVC. The patient was discharged with this therapy with scheduled echocardiographic and Holter-ECG follow-up for every 6–12 months.

Conclusion: Non-sustained ventricular tachycardia associated with mitral valve prolapse and mild mitral regurgitation with preserved left ventricular ejection fraction does not carry any adverse prognostic significance and it does not require further invasive electrophysiologic examination. Dual antiarrhythmic therapy (amiodarone and beta blocker) is suggested in the absence of contraindication, as well as regular 6–12 months Holter-ECG and echocardiographic follow-up.

3.2.

DOPRINOS DIAGNOSTICIRANJU BLOKA DESNE GRANE HISOVOG SNOPA (RBBB) USLOVLJENOG FREKVENCIJOM

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U zavisnosti od vremenskog perzistiranja, blok desne grane Hisovog snopa (RBBB) može biti tranzitoran, intermitentan i stalan. Intermitentni blok desne grane Hisovog snopa može biti i funkcionalne prirode i biti u vezi sa frekvencijom srčanoga rada. Frekvencija, posle koje se menja intraventrikularna sprovodljivost impulsa, naziva se »kritična« (angl. »critical rate«), dok poremećaj sprovođenja impulsa kroz desnu granu Hisovog snopa koji je u vezi sa njom (sa frekvencijom), naziva se »blok desne grane uslovljen frekvencijom«.

Za bolje razumevanj mehanizma nastanka bloka desne grane Hisovog snopa uslovljenog frekvencijom (funkcionalnog RBBB), treba naglasiti činjenicu da ćelije različitih dijelova intraventrikularnog sprovodnog sistema srca, imaju različitu formu i vremensko trajanje akcionog potencijala i perioda absolutne refraktarnosti.

Najduži period absolutne refraktarnosti ima desna grana Hisovog snopa, zatim prednji fascikulus lijeve grane i na kraju zadnji fascikulus lijeve grane Hisovog snopa. Zbog ove činjenice, impulse koji ubrzaju supraventrikularnu frekvenciju (ili prevremeni supraventrikularni impulse), kada stignu »prije vremena« u različitim dijelovima intraventrikularnog sprovodnog sistema, mogu ih zateći još u period absolutne refrak-

tarnosti i za posledicu imaju poremećaj intraventrikularne sprovodljivosti uslovljene od visoke frekvencije (dotični blok grane uslovljen frekvencijom).

U ovome radu prikazan je slučaj sa RBBB uslovljenog visokom ili »kritičnom« frekvencijom srčanih supraventrikularnih impulsa, sa fenomenom deblokiranja RBBB u prvom slijedećem QRS kompleksu poslije VES, interpretacija ovog fenomena i njegovo korišćenje za neinvazivno diagnosticiranje RBBB uslovljenog frekvencijom.