

Tromboza biološkog plućnog zaliska u bolesnice s prirodnim greškom srca na terapiji rivaroksabanom zbog paroksizmalne fibrilacije atrijske

Thrombosis of biological pulmonary valve in a grown-up congenital heart disease patient treated with rivaroxaban for atrial fibrillation

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Uvod: U bolesnika s kirurški korigiranom tetralogijom Fallot upravo je bolest plućne valvule (PV) važan prediktor morbiditeta i mortaliteta, jer kao posljedica bolesti nastaje dilatacija desne klijetke s ekscentričnom hipertrofijom i, naposljetku, popuštanjem sistoličke funkcije. Popuštanje desne klijetke može se spriječiti pravovremenom zamjenom PV. Tromboza PV vrlo je rijetka. Dugotrajna antikoagulantna terapija nije indicirana pri ugradnji bioloških valvula, no opisan je pozitivan učinak varfarinske terapije na trombozu bioloških valvula. U dosadašnjoj literaturi nema dokaza o pozitivnom utjecaju novih antikoagulacijskih lijekova (NOAK) na trombozu bioloških valvula.^{1,2}

Prikaz slučaja: Predstavljamo slučaj bolesnice rođene sa tetralogijom Fallot, kirurški korigirane u četvrtoj godini života. Hospitalizirana je u Kliničkom bolničkom centru Zagreb zbog brze forme fibroundulacije atrijske koja je elektrokonvertirana ubrzo po prijemu. Ultrazvučno je prikazana dilatirana desna klijetka s reduciranom sistoličkom funkcijom i volumnim opterećenjem. Magnetskom rezonancijom opisana je značajna regurgitirajuća frakcija i volumen (RF 41 %, RVEDV 233 ml, RVEDVI 116 ml/m², RVEF 48 %). Učinjena je kirurška zamjena PV biološkom protezom (SJM Biocor A 25 mm). Kroz tri mjeseca postoperativno provedena je antikoagulantna terapija varfarinom. Zbog paroksizmalne fibrilacije atrijske u terapiju je uveden rivaroksaban u dozi 20 mg dnevno. Dvadeset mjeseci kasnije hospitalizirana je sa znacima popuštanja desne klijetke, no sada sa dilatiranom desnom klijetkom i znacima tlačnog opterećenja (sistolički gradijent na PV 110 mmHg). Transezofagejskim ultrazvukom prikazan je organizirani tromb veličine 25x10 mm na biološkoj protezi. Učinjena je kirurška ekscizija tromboziranog materijala i reimplantacija biološke valvule, nastavljena je terapija varfarinom. Postoperativni ehokardiografski pregled ukazuje na redukciju volumena desne klijetke s poboljšanjem sistoličke funkcije (gradijent na PV 25 mmHg).

Zaključak: Tromboza biološkog plućnog zaliska vrlo je rijetka, a uporaba varfarina preporuča se u ranom postoperativnom periodu. Upotreba rivaroksabana nije spriječila pojavu tromboze zaliska u slučaju naše pacijentice, kod koje nije bilo mehaničkih uzroka za razvoj tromboze i u koje je probir na postojanje trombofilije bio negativan.

Introduction: Pulmonary valve (PV) disease is a known predictor of morbidity and mortality in patients with previously surgically corrected Tetralogy of Fallot resulting in right ventricle (RV) dilatation, eccentric hypertrophy, and systolic failure. RV failure can be prevented with opportune PV replacement. PV thrombosis is rare. Long term anticoagulation therapy with warfarin is not indicated with biological valves but positive effect on thrombosis has been described. There is no evidence for positive effect of new anticoagulant drugs (NOAC) on valvular thrombosis.^{1,2}

Case report: We present a case of a young woman who was born with Tetralogy of Fallot and who underwent a complete surgical correction at the age of four. She was admitted to University Hospital Centre Zagreb with fast atrial fibroundulation requiring immediate cardioversion. Echocardiography (ECHO) revealed a dilated RV with reduced systolic function and volume overload. Cardiac magnetic resonance proved significant pulmonary insufficiency with significant regurgitant fraction and volume (RF 41 %, RVEDV 233 ml, RVEDVI 116 ml/m², RVEF 48 %). Surgical implantation of biological prosthesis was done. Postoperative ECHO indicated good function of biological PV and reduction of regurgitant volume. Anticoagulation therapy with warfarin was continued for three months after the surgery. Afterwards, rivaroxaban 20 mg daily was implemented due to paroxysmal atrial fibrillation. Twenty months after bioprosthesis implantation, she presented with signs of right heart failure. ECHO revealed dilated RV but with signs of pressure overload and systolic pressure gradient of 110 mmHg. Transoesophageal ECHO showed organized thrombus formation of 25x10 mm on bioprosthesis. Surgical excision of a thrombosed tissue was done with reimplantation of St. Jude Biocor valve A 25 mm on pulmonary position, anticoagulation with warfarin was indicated. Postoperative ECHO showed reduction of RV volume and improvement of systolic function. PV systolic gradient was 25 mmHg.

Conclusion: PV thrombosis is a rare event. Warfarin is still recommended in the early postoperative period. Rivaroxaban did not prevent valve thrombosis in our patient who was negative for thrombophilia testing and had no mechanical predisposition for thrombosis.

LITERATURE

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