Trodimenzionalna ehokardiografija pri dijagnosticiranju unikuspisne mitralne valvule

Use of three-dimensional echocardiography in diagnosis of uni-leaflet mitral valve

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KLJUČNE RIJEČI: prirodne malformacije, unikuspisna mitralna valvula, 3D ehokardiografija.

KEYWORDS: congenital malformations, uni-leaflet mitral valve, 3D echocardiography.

CITATION: Cardiol Croat. 2016;11(10-11):489. | DOI: <http://dx.doi.org/10.15836/ccar2016.489>

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Uvod: Prirodne malformacije mitralne valvule su razmjerno rijetke uz izraženu varijabilnost strukturalnih nepravilnosti. U literaturi je opisan mali broj slučajeva funkcionalnih unikuspisnih mitralnih valvula.¹⁻³ Prikazujemo dva bolesnika s gotovo potpunim nedostatkom stražnjeg mitralnog kuspisa (SMK) služeći se trodimenzionalnom transtorakalnom ehokardiografijom (3D TTE) kao dragocjenim dijagnostičkim pomagalom.

Slučaj A: Bolesnica u dobi od 38 godina operirana je zbog konstriktivnog perikarditisa. "Real time" 3D TTE prikazala je elongiran, morfološki uredan i pokretljiv prednji mitralni kuspis (PMK) koji se naslanja na rudiment SMK. Subvalvularni aparat je bio anatomski uredan s primjerenim kordama i papilarnim mišićima. Color Doppler je prikazao uski mlaz mitralne regurgitacije usmjeren prema lateralnom zidu lijeve pretklijetke.

Slučaj B: Bolesnik u dobi od 24 godine hospitaliziran je zbog akutnog infarkta miokarda sa ST elevacijom inferoposterolateralne lokalizacije i desnog ventrikula. Real time 3D TTE prikazala je rudiment SMK te prolaps uvećanog PMK uz umjerenu mitralnu regurgitaciju s ekscentričnim mlazom usmjerenim prema posterolateralnoj stijenci LA. Tijekom jednogodišnjeg kontrolnog perioda nije bilo progresije.

Zaključak: Sve do danas nije bilo potrebe za korektivnom kirurzijom kod ovih bolesnika, ali klinički tijek ostaje nepredvidiv. Pretpostavlja se da bi moglo nastati pogoršanje MR kao posljedica dilatacije anulusa. Želimo istaknuti da je "Real time" 3D TTE važno dijagnostičko sredstvo u otkrivanju valvularnih bolesti, jer preciznijim slikovnim prikazom pomaže prilikom procjene morfoloških nepravilnosti i unapređuje razumijevanje složenih međudodosa unutar mitralnog aparata.

Introduction: Congenital malformations of the mitral valve are relatively rare and present with a wide spectrum of morphologic abnormalities. Descriptions of functionally uni-leaflet mitral valves are extremely rare and largely limited to few case reports.¹⁻³ We present two patients with almost complete absence of posterior mitral valve leaflet (PML) in which three-dimensional transthoracic echocardiography (3D TTE) was used as a valuable diagnostic tool.

Case A: 38-year-old woman was operated due to constrictive pericarditis. Real-time 3D TTE showed only a single, long, morphologically valid, properly movable leaflet in the place of the anterior mitral leaflet (AML) that leans itself on the PML rudiment. The subvalvular apparatus was anatomically normal, with appropriate chordal attachments and papillary muscles. Color Doppler showed a narrow jet of mitral regurgitation directed towards the lateral wall of the left atrium.

Case B: 24-year-old patient was admitted due to acute myocardial infarction with ST elevation of inferoposterolateral region and right ventricle. Real time 3D TTE showed a rudiment of the PML with a prolapse of enlarged AML and eccentric moderate MR directed towards posterolateral wall of the LA, with no progression within a one year control period.

Conclusion: Until today there was no need for corrective surgery in these patients, but prognosis remains uncertain. The potential of worsening mitral regurgitation, primarily as a consequence of annular dilatation, has been postulated. Real-time 3D TTE is important in diagnosing heart valve diseases because it enhances the evaluation of morphologic abnormalities and improves understanding of complex relationships through more precise imaging and presentation of interrelations of different parts of the mitral apparatus.

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RECEIVED:
September 24, 2016

ACCEPTED:
October 10, 2016