Prikaz bolesti aortnog zaliska i korijena aorte u obitelji čijih se više članova bavi bodybuildingom

Family occurrence of aortic valve and root disease in family of bodybuilders

Darko Kranjčec*

Poliklinika za prevenciju
kardiovaskularnih bolesti
i rehabilitaciju, Zagreb,
Hrvatska

Institute for Cardiovascular
Prevention and Rehabilitation,
Zagreb, Croatia

KLJUČNE RIJEČI: aortna valvula, bodybuilding.

KEYWORDS: aortic valve, bodybuilding.

CITATION: Cardiol Croat. 2016;11(10-11):515-516. | DOI: <http://dx.doi.org/10.15836/ccar2016.515>

***ADDRESS FOR CORRESPONDENCE:** Darko Kranjčec, Poliklinika za prevenciju kardiovaskularnih bolesti i rehabilitaciju, Draškovičeva 13, HR-10000 Zagreb, Croatia. / Phone: +385-98-187-82-48 / E-mail: kdarko9@gmail.com

ORCID: Darko Kranjčec, <http://orcid.org/0000-0002-6346-4190>

Bikuspidna aortna valvula se često pojavljuje unutar iste obitelji, po tipu autosomnog dominantnog nasljeđivanja s inkompletnom penetracijom. Bikuspidna aortna valvula je često povezana s bolesti korijena aorte. Prema nekim autorima 52 % mladih ljudi s bikuspidnom aortnom valvulom imaju dilataciju aorte, neovisno da li je prisutna disfunkcija samog zaliska.¹

Slučaj: 46-godišnji bolesnik sa anamnezom višegodišnje arterijske hipertenzije upućen je na ehokardiografski pregled (TTE) zbog sumnje na hipertenzivnu srčanu bolest. Arterijski tlak (u mirovanju) bio je dobro reguliran uzimanjem valsartana u dozi od 80 mg. Pacijent se dugi niz godina bavi bodybuildingom te na svakodnevnom treninzima diže vrlo teške terete. Ovo mu je bio prvi TTE do tada. Nalaz je ukazao na bikuspidnu aortnu valvulu s ektazijom korijena (40mm) te aneurizmom ascendentne aorte (promjera do 58 mm u vidljivom dijelu). Kao posljedica bikuspidne valvule i/li dilatacije aorte ili obojega imao je i umjerenu aortnu regurgitaciju. Pacijent je savjetovan da odmah prestane sa treninzima te da učiniti hitno CT aortografiju. Nalaz CT-a pokazao je dilataciju korijena i ascendentne aorte do 65 mm (slike 1 i 2) dok luk aorte i descendentna aorta nisu bili zahvaćeni bolešću (slika 3). Pacijent je upućen kardiovaskularnom kirurgu i uskoro uspješno operiran.

Bolesnik ima tri sina, od kojih se dvoje aktivno bavi bodybuildingom. Svima je učinjen TTE. Najstariji sin, star 24 godine, nije se bavio bodybuildingom. Njegov ehokardiografski nalaz bio je uredan. Drugi sin, star 22 godine, koji se bavi bodybuildingom imao je bikuspidnu aortnu valvulu, bez značajne stenoze ili regurgitacije, uz normalan promjer korijena i ascendentne aorte. Njemu je savjetovano prestati sa dizanjem teških tereta. Treći sin, star 20 godina (također aktivan u bodybuildingu) imao je trikuspidnu aortnu valvulu, iako uz iregularitete rubova listića i (posljedičnu) blagu aortnu regurgitaciju I. angio st. Savjetovano mu je ponoviti ehokardiografsku pretragu kroz 3 godine.

Bicuspid aortic valve has often familiar clustering, consistent with autosomal dominant inheritance with incomplete penetrance. Bicuspid aortic valve is frequently associated with diseases of aortic root. According to some authors 52% percent of young people with bicuspid aortic valve have aortic dilatation regardless of significant valve dysfunction.¹

Case: 46-years old patient with anamnesis of several years of arterial hypertension was referred to transthoracic echocardiography (TTE) as a part of screening for hypertensive heart disease. His blood pressure (at rest) was well regulated with valsartan 80mg. He was on every day heavy-weight lifting trainings for a years. That was his first echo exam in his life. Exam showed bicuspid aortic valve with ectasia of aortic root (40 mm) and marked aneurysm of ascending aorta (till 58 mm as visible by TTE). As a consequence of bicuspid valve, or aortic root dilatation (or both) he had moderate aortic regurgitation as well. Patient was told to stop heavy weight lifting immediately and make CT aortography. CT showed dilatation of aortic root and ascending aorta till 65 mm (Figures 1 and 2), while aortic arch and descending aorta were not involved (Figure 3). Patient was referred to cardiothoracic surgeon and operated.

Patient has three sons, two of them trained in heavy weight lifting as well. To all of them an transthoracic echo was done. Oldest son was 24 and was not involved in training. He had normal TTE result. Other son, 22 years old, involved in heavy weight training had bicuspid aortic valve on TTE (without significant stenosis or regurgitation) with normal diameter of aortic root/ascending aorta. He was counseled to refrain from heavy weight lifting and to make echo controls on annual basis. Third and the youngest son was 20 years old (also active in body building). TTE showed tricuspid aortic valve, although with slight irregularity of aortic valve leaflets and mild aortic regurgitation. Aortic root and ascending aorta were normal. He was told to repeat echo examination in three years.

RECEIVED:
September 7, 2016

ACCEPTED:
October 10, 2016

FIGURE 1. Chest X-ray.

FIGURE 2. CT aortography – scan at the level of ascending aorta.

FIGURE 3. CT aortography – scan at the level of aortic arch.

LITERATURE

1. Nkomo VT, Enriquez-Sarano M, Ammass NM, Melton LJ 3rd, Bailey KR, Desjardins V, et al. Bicuspid aortic valve associated with aortic dilatation: a community-based study. *Arterioscler Thromb Vasc Biol.* 2003 Feb 1;23(2):351-6. DOI: <http://dx.doi.org/10.1161/01.ATV.0000055441.28842.0A>