Giant calcifications in the interventricular septum deriving from the aortic stenosis

Anna Tomaszuk-Kazberuk1*, Adam Lukasiewicz2, Bozena Sobkowicz1, and Wlodzimierz J. Musial1

1Department of Cardiology, Medical University in Bialystok, ul. M. Skłodowskiej-Curie 24A, 15-276 Bialystok, Poland and 2Department of Radiology, Medical University in Bialystok, Bialystok, Poland

* Corresponding author. Tel: +48 (85) 7468 656; fax: +48 (85) 7468 604. Email: walkaz@poczta.fm

68-year-old patient with a history of arterial hypertension and heart failure, with established diagnosis of the severe aortic stenosis was referred for evaluation before cardiac surgery on the aortic valve. Electrocardiogram revealed left bundle brunch block. The transthoracic echocardiogram showed severe aortic stenosis and gave an impression of hyperechogenic oval intramural mass placed in the interventricular septum (Figure 1A). The transoesophageal echocardiogram with 3D option did not contribute to the diagnosis. The

Figure 1 Hyperechogenic oval intramural mass placed in the interventricular septum on transthoracic echocardiography, (B) maximum intensity projection reconstruction (MIP) in the frontal surface—the MDCT revealed 60-mm long calcification with a 17-mm width deriving from calcified aortic annulus and extended caudally into the membranous and muscle part of the interventricular, (C)—volume rendering reconstruction—calcification in the interventricular septum in white colour; ascending aorta and coronary vessels are shown, (D)—volume rendering reconstruction with automatic segmentation of the tissue—the calcification in the interventricular septum.

64-slices multi-detector computed tomography (MDCT) revealed 60-mm long calcification with a 17-mm width deriving from calcified aortic annulus and extended caudally into the membranous and muscle part of the interventricular septum towards the apex of the left ventricle (Figure 18–D). Valvular calcifications did not extend within the coronary ostium level and into the left ventricular outflow tract. The patient is scheduled for surgical valve replacement.

The aim of this report was to highlight uncommonly seen enormous calcifications in interventricular septum associated with aortic stenosis. A comprehensive MDCT evaluation of patients referred for either aortic valve replacement or transcutaneous aortic valve implantation (TAVI) is feasible, provides more accurate assessment of the extent of calcifications than transthoracic and transoesophageal echocardiography.

Published on behalf of the European Society of Cardiology. All rights reserved. © The Author 2012. For permissions please email: journals.permissions@oup.com