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A statistical shape model of the left ventricle from real-time 3D echocardiography and its application to myocardial segmentation of Cardiac Magnetic Resonance images

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Abstract

Object: We present in this paper the application of a statistical shape model of the left ventricle (LV) built from transthoracic real time 3D echocardiography (3DE) to segment the LV endocardium and epicardium in cardiac magnetic resonance (CMR) images.

Material and Methods: The LV model was built from a training database constituted by over 9000 surfaces obtained from retrospectively selected 3DE examination of 435 patients with various pathologies. Three-dimensional

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