

Cardiac repercussions of hypertension – pathophysiology and diagnosis

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Abstract

Systemic hypertension (HTN) is a major cardiovascular risk factor, with a significant impact upon the high prevalence of stroke and coronary artery disease in hypertensive patients. The main initial repercussion of HTN in the heart is left ventricular hypertrophy (LVH), which results initially in diastolic dysfunction, eventually progressing towards systolic dysfunction. The most commonly used methods in the assessment of these pathologic features are: electrocardiogram, the echocardiogram, including flow Doppler and tissue Doppler imaging (TDI), both of which are of particular relevance in assessing diastolic dysfunction. All these methods also allow us to measure therapeutic results such as LVH regression and its benefits on the heart, namely an improvement in systolic function.