Title

USE OF DIGITAL ANGIOGRAPHY IN ASSESSMENT OF VENTRICULAR EJECTION FRACTION AND PACING INDUCED WALL MOTION ABNORMALITIES

Journal

CIRCULATION, 64(4)

ISSN

0009-7322

Authors

TOBIS, JM

NALCIOGLU, O

SEIBERT, JA

et al.

Publication Date

1981

ABSTRACTS CIRCULATION, VOL 62, SUPP III, OCTOBER, 1980

Clinical Research
Exercise Testing II
Wednesday Morning

USE OF DOPPLER ECHOCARDIOGRAPHY IN THE NON-INVASIVE ASSESSMENT OF LEFT VENTRICULAR DYSFUNCTION IN PATIENTS WITH DILATED CARDIOMYOPATHY

759

Julius M. Gardin, Lloyd T. Iseri, Uri Elkayam, Jonathan Tobis, William Childs, Cora S. Burn, Walter L. Henry.
University of California-Irvine, Orange,CA

The ability of Doppler echocardiography (echo) to assess left ventricular dysfunction in patients (pts) with dilated cardiomyopathy was evaluated in 10 pts with M-mode echo evidence of dilated left ventricles (LV) and reduced percent fractional shortening (%FS) < 25%. A range-gated, spectrum analyzer-based Doppler velocimeter was used in conjunction with a suprasternal notch M-mode transducer to measure ascending aortic (Ao) flow velocity. Systolic ejection indices (acceleration, deceleration and peak flow velocity) were measured in each subject and compared to values from 15 normal controls. Pts with LV dysfunction exhibited reduced acceleration (438-1000 cm/sec^2, mean 784 cm/sec^2) compared to normals (1180-2200 cm/sec^2, mean 1836 cm/sec^2), $p<0.01$. Peak aortic flow velocity was also markedly decreased (35-60 cm/sec, mean 43 cm/sec) compared to normals (55-98 cm/sec, mean 78 cm/sec), $p<0.01$. Average deceleration was similar in the two groups ($p>0.05$). We conclude that Doppler echocardiography is a sensitive new noninvasive tool for studying patients with LV dysfunction.