Quantitative evaluation of the effects of successful percutaneous coronary intervention on left ventricular diastolic function in coronary artery disease patients

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Background

- The Ultrasonics indicators changes of the evaluation of diastolic function were used to evaluate the benefits of PCI for patients with coronary heart disease. The results of the different national scholars were inconsistency.

- Our study aims to explore the effect of elective PCI on left ventricular diastolic function with the utilization of echocardiography in CAD patients, which has not been investigated in more detail.
Method

- 60 CAD patients referred to our hospital for elective PCI were included. Echocardiography was performed 24h before, 24h after and 1 month after stenting for every one. 30 healthy individuals were examined as control.

- The patients were then divided into two groups according to the settings of revascularization during the procedure of elective PCI and the Gensini score.

- Compare the echocardiographic parameters at different time to stenting and between groups of different revascularization settings and between groups of different Gensini score ranges.
Result

- There were significant differences in $E$, $A$, $E/A$, $EDT$, $Adur$, $IVRT$, $E/Ea$ and Tei-index between 1 month after and 24hrs before PCI (all $p < 0.05$)

- The similar results were shown in complete revascularization group and in patients with Gensini score $\leq 25$
Conclusion

- PCI could improve LV diastolic function significantly 1 month after stenting, and the effect was much more predominant in patients with low Gensini score.
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