SAFETY AND FEASIBILITY OF TRANSRADIAL CORONARY ANGIOGRAPHY AT THE OUTPATIENT CLINIC

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Objective To evaluate the safety and feasibility of transradial coronary angiography at the outpatient clinic.

Methods From February, 2008 to June, 2008, 100 outpatients who received transradial coronary angiography in Anzhen Hospital were included in this analysis, and 100 inpatients who underwent coronary angiography were selected as control group. Primary endpoints included success rate, percentage of angiographic catheter use with different diameters, adverse events during the procedure (such as death, malignant arrhythmia, acute myocardial infarction, coronary artery spasm, coronary artery dissection, perforation or occlusion, etc.) and after the procedure (such as death, acute myocardial infarction, upper limb haematoma, osteofascial compartment syndrome, radial artery pseudoaneurysm or occlusion, etc.).

Results The success rate (100% vs 100%), procedure duration time (12.5±3.4 min vs 10.2±3.6 min, p =0.517) and exposition time (4.3±1.0 min vs 4.1±1.0 min, p =0.629) were similar between the outpatient and inpatient groups. Radial and coronary artery spasm were the main adverse events during the angiography, and haematoma was the main adverse event after the angiography. There were no significant differences of adverse events between the 2 groups. The total cost of the outpatient group was significantly lower than the inpatient control group (4012±238 yuan vs 5529±371 yuan, p<0.01). Expenditure including chemical tests, medicine, nursing care, Room & Board all decreased significantly.

Conclusion Transradial coronary angiography application at the outpatient clinic was safe and feasible for stable patients, and this procedure could decrease the medical expenditure and shorten the admission time.

ASSOCIATION OF CORONARY HEART DISEASE WITH CAROTID ARTERY INTIMA-MEDIA THICKNESS AND BA PWV

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Objective To investigate the association of coronary heart disease with carotid artery intima-media thickness and baPWV, by measuring carotid intimia - media thickness and baPWV.

Methods 160 patients who had been examined by coronary angiography were divided into normal group and coronary artery disease group (this group was subdivided into 1 vessel group and multi-vessel group). Carotid ultrasonography and baPWV were performed on them.

Results Compared to the patients in normal group, The carotid artery IMT of the coronary artery disease group increased significantly with the aggravation of coronary artery stenosis (the normal group: 0.83±0.06 mm, the 1 vessel group: 0.91±0.11 mm, the multi-vessel group: 1.06±0.15 mm, p<0.01). The baPWV increased too (the normal group 1411.20±197.71, the 1 vessel group 1742.200.89, the multi-vessel group 2589.40±519.03, p<0.01). The carotid artery IMT and baPWV were significantly higher in multi-vessel group than those in 1 vessel group and normal group (p<0.01).

Conclusion Carotid atherosclerosis and baPWV have great value in predicting coronary artery disease. For the coronary heart disease high risk group, routine carotid ultrasound examine and the measure of baPWV can be used to estimate the state of coronary artery atherosclerosis.

CAROTID INTIMIA-MEDIA THICKNESS AND CORONARY ARTERY DISEASE

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Objective To analyse the relationship of carotid atherosclerotic and coronary artery disease (CAD), by measuring Carotid intimia - media thickness.

Methods The plaque index and intimia - media thickness (IMT) were detected by high-resolution ultrasound in patients with coronary artery angiography. The extent of difference of IMT were compared between patients with and without coronary artery disease.

Results Compared to the patients with no CAD, the IMT of patients with CAD significantly increased (0.83±0.08 mm vs 0.91±0.11 mm; 0.83±0.08 mm vs 0.91±0.11 mm MS1.08±0.15 mm; 0.91±0.11 mm MS1.08±0.15 mm; p<0.05). The incidence of plaque in CAD patients was higher than that of patients with no CAD. The IMT was significantly higher in multi-vessel group than those in uni-vessel group p<0.05).

Conclusion In CAD patients, the widened inner diameter and lower blood flow rate of carotid artery result in a maximal shearing force significantly lower that of the control group. The increasing intimia-media thickness is associated greatly with carotid atherosclerosis. The haemodynamics change plays an important role in the development and progression of atherosclerosis in CAD patients. Carotid atherosclerosis has great value in predicting coronary artery disease. The IMT can be the surrogate markers of the extensive of coronary artery lesion.