Radial arteriograms were taken 1 min and 2 min after injection of vasodilators. The RAS incidence was compared at baseline, 1 min and 2 min after injection of vasodilators by one-way ANOVA in three groups. Stenosis of radial arteries in diameter was measured by quantitative computed analysis (QCA) method on radial arteriograms, RAS was defined as stenosis >70%, and clinical RAS was defined as patients' feeling of pain or there was obvious resistance in advancing or withdrawing catheters.

Results The total RAS rate was 10.6%, and clinical RAS rate 6.2%. Diameter of radial artery, sheath profile and previous TRI history >2 were RAS independent risk factors. The RAS rate at baseline in nitroglycerin group, nicardipine group and cocktail group was 15%, 8.3% and 8.3% (no significant difference), 3.3%, 5.0% and 1.7% (no significant difference) at 1 min after injection of vasodilators, 1.7% (vs Nicardipine group, $p<0.05$), 3.3% and 0%. (vs other two groups, both $p<0.05$) at 2 min after injection.

Conclusions RAS rate was 10.6%. The independent relative factors of RAS included diameter of radial artery, sheath profile and ≥ 2 previous TRI history. Nitroglycerin and Nicardipine can significantly dilate radial arteries, but the combination of both has a more powerful effect.

GW23-e0664

ANALYSIS OF RADIAL ARTERY SPASM AND VASODILATOR INTERVENTION STUDY

doi:10.1136/heartjnl-2012-302920j.15

¹Li Xiaolong, ²Wang Bin. ¹Changzhou Traditional Medicine Hospital; ²Aerospace Center Hospital/Aerospace Clinical College of Peking University

Objectives The aim of the study was to observe the correlative factors of radial artery spasm (RAS), compare the effect of different spasmolytic regimens on RAS by radial artery angiography.

Methods One hundred and eighty patients (97 males and 83 females) undergoing transradial coronary angiography or intervention at our center were divided into three groups: nitroglycerin group (60 patients), nicardipine group (60 patients) and cocktail group (60 patients) randomly. The radial arteriography was performed through the sheath at baseline. Then nitroglycerin 200 μ g, nicardipine 200 μ g and 100 μ g of nicardipine plus 100 μ g of nitroglycerin were injected respectively through the right radial arteries.