Radial Artery Vasospasm "Myth or Reality" Percutaneous Coronary Intervention Via Radial Without the Use of Vasodilator Cocktail

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Objective:
a) Determine the frequency of the radial artery vasospasm without use of vasodilator cocktail.
b) Remove the side effects of vasodilator’s use.

Materials: 40 patients were treated, 25 men and 15 women, aged between 48 and 72 years old, from November 2012 to April 2013, all patients with class I indications for coronary intervention. The size of the patients ranged between 1.48 meters and 1.74 meters. All patients were assessed at 24 hrs and 30 days.

Methods: A right radial approach was practiced in all patients. All patients were medicated with 0.25 mg of alprazolam the night before the procedure. The procedure to be performed was intentionally explained to them, the possible risks and complications of coronary intervention, as well as the sensations during such. A 1 ml of simple Xylocaine 2% was applied at the site of the puncture and the cannulation was performed by the most experienced operator. A radial 6 Fr introducer (Terumo) was used and the usual dose of unfractionated heparine was administered blood via. Initial angiography was performed in order to assess spasm or vascular abnormalities. Then all diagnostic procedures were carried out with a 0.035 guide with teflon catheter 260cm and 5 Fr diagnostic. The diagnostic procedure was performed by familiar personnel with this approach. In case of need of an interventionism, a 6 Fr guiding catheter was applied. At the end of the procedure, a new angiography was performed, comparing it to the previous one.

Results: In all the patients, the procedure was achieved without the use of vasodilator cocktail. No significant vasospasm showed that administration made conditional vasodilator drugs, analgesics or cancellation. The performing of the radial puncture in the most precise way, the use of a teflon guide 260 cm and scarce manipulation of catheters, were the main points for achieving such a procedure. Only 6 patients showed no significant radial spasm compared with initial angiography.

Conclusion: The performing of radial approach procedures without the use of vasodilators is feasible, minimizing the side effects of vasodilator. The main points to prevent coronary vasospasm are: an adequate explanation of the procedure to the patient, perform a clean puncture, use a teflon guide 260cm and scarcely manipulating catheters.