

Modification of phenylephrine induced contraction of human vessel rings by L-arginine and L-arginine methyl ester Influencia del sistema nitridérgico en la respuesta contráctil a fenilefrina de anillos de vasos usados en revascularización coronaria

Prieto, Juan C.

Pinardi, Gianni

Zamorano, Jaime

Larraín, Ernesto

Bermúdez, Cristián

Castillo, Rodrigo

Cisternas, Verónica

Miranda, Hugo F.

Background: Endothelial dysfunction is associated to a lower production of nitric oxide and a reduction of endothelium mediated vasodilation. **Aim:** To study the effects of pharmacological agents that modify nitric oxide synthetase (NOS) activity on tension changes induced by phenylephrine in rings of internal mammary and radial arteries and saphenous vein. **Material and methods:** Vessel rings of 7 to 10 mm length were obtained from 32 patients subjected to coronary vascular surgery. Fourteen samples of radial artery, 12 samples of internal mammary artery and 15 samples of saphenous vein were obtained. A maximal contraction was induced with KCl and dose response curves for phenylephrine (FE) in the absence or presence of L-arginine and L-arginine methyl ester (L-NAME), were constructed. **Results:** The tension induced by FE in internal mammary artery and saphenous vein reached a maximum, near 90% of 80 mM KCl-induced contraction, but in the radial artery, it reached a maximum of 63% ($p < 0.05$)