Suppressive Effects of Eplerenone on Accumulation of Extra Cellular Matrix in Neointima After Coronary Stent Implantation Using Swine

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Background: Neointimal formation, mainly composed of smooth muscle cell proliferation, is important in the pathogenesis of atherosclerosis and restenosis. In spite of delayed catch-up restenosis of restenotic lesions, the degree of p21 expression be the important mechanism of radiation-induced cell cycle arrest and apoptosis.

Methods: The cell counts after irradiation with 0, 2, 8, 16 Gray (Gy) (n=9, each) were 3.28, 2.34, 1.94 and 1.30 x 10^5/ml at 24h, and 5.10, 2.00, 1.80 and 1.20 x 10^5/ml at 48h, respectively; P<.001). The use of glycoprotein IIB-IIIA inhibitors was significantly greater in smaller (French size) compared to Groups II & III (6.4 +/- 0.8 vs 8.2 +/- 0.7 & 7.8 +/- 0.9, respectively; P<.001). Vascular complications in 16,201 consecutive PCI patients from 1979 to 2002 were retrospectively evaluated using the Mayo Clinic International Registry. The patients were divided into four groups based on PCI procedure date. Group I (1979-1989), N= 3085, balloon angioplasty alone was used in the majority. Group II (1990-1995), N=4753, stent era with vigorous anticoagulation pre and post PCI. Group III (1996-1999), N=4827, antiplatelet agent monitored oral anticoagulation and glycoprotein IIb/IIIa inhibitor use was initiated.

Vascular Access Site Complications Post Percutaneous Coronary Intervention

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Background: Vascular access site complications can occur after percutaneous coronary interventions (PCI). Potential contributing factors include antithrombotic regimens, sheath size, and patient comorbidities. These have evolved significantly over the past decade.

Method: Vascular complications in 16,201 consecutive PCI patients from 1979 to 2002 were retrospectively evaluated using the Mayo Clinic International Registry. The patients were divided into four groups based on PCI procedure date. Group I (1979-1989), N= 3085, balloon angioplasty alone was used in the majority. Group II (1990-1995), N=4753, stent era with vigorous anticoagulation pre and post PCI. Group III (1996-1999), N=4827, antiplatelet agent monitored oral anticoagulation and glycoprotein IIb/IIIa inhibitor use was initiated.

Conclusions: The patients in Group IV were significantly older, had a larger body mass index (BMI), a higher percentage of females, diabetes, hypercholesterolemia, and hypertension compared to the other three groups. Sheath size used in Group IV was significantly smaller (French size) compared to Groups II & III (6.4 +/- 0.8 vs 8.2 +/- 0.7 & 7.8 +/- 0.9, respectively; P<.001). The use of glycoprotein IIb/IIIa inhibitors was significantly greater in Group IV compared to Groups II & III (87% vs 0% & 42% respectively; P<.001). Even