Prevention of Renal Function Worsening After Coronary Angioplasty: The Role of Acetylcysteine
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Recent studies have suggested that oral administration of acetylcysteine could prevent the renal function deterioration induced by radiographic contrast agents in patients with chronic renal failure. Our prospective, controlled, open-label study included 100 consecutive patients with baseline serum creatinine >1.5 mg/dl and intravenous hydration who underwent coronary angiography. Baseline and peak post-procedure serum creatinine (Cr) levels during the follow-up period were compared in 50 patients with acetylcysteine (500 mg bid, before and after administration of the contrast agent) and 50 patients without acetylcysteine. The baseline clinical characteristics, creatinine levels (2.1±1.2 vs 1.8±0.4 mg/dl) and contrast volume (171±72 vs 182±43 ml) of the 2 groups were similar. Other 24 and 48 hour creatinine levels were lower in the acetylcysteine group than in the control group. Conclusion: Oral administration of acetylcysteine in patients undergoing coronary angiography is associated with lower renal function deterioration.

Do the Ethnic Differences in Presentation and Treatment Strategy Influence Outcomes of Contemporary Percutaneous Coronary Intervention? A Study from the National Heart, Lung, and Blood Institute Dynamic Registry

Background: Methods: Information about the impact of race/ethnicity on outcomes following percutaneous coronary interventions (PCI) in the modern era is limited. We investigated differences in clinical presentation, treatment strategy, and acute and 1-year outcomes between consecutive patients from different ethnic backgrounds (3669 white, 446 black, 301 Hispanic and 201 Asian) undergoing PCI between 1997 and 1999. The NHLBI Dynamic Registry was established to characterize contemporary PCI practice and was designed to incorporate an enriched sample of ethnic minorities. All statistical comparisons were made to whites.

Results: Other than mean age (63.5 years white vs 58.7 years black, 61.1 years Hispanic, 61.6 years Asian, all p<0.05), non-whites presented with a higher prevalence of the cardiovascular disease risk factors hypertension (58% white vs 79% black, 69% Hispanic, 34% Asian; all p<0.01) and diabetes (25% white vs 41% black, 45% Hispanic, 25% Asian; all p<0.01). Unstable angina was common in all groups although blacks were more likely to present with an acute MI (29.4% vs 21.4%, p<0.001). Extent of vessel disease was similar to whites. While the rate of stent implantation was lower in blacks (63% vs 79%, p<0.01), angiographic and procedural success rates were high (95% and 97%) and did not differ by race/ethnicity. In-hospital mortality was lower in blacks (0.2% vs 1.7%, p<0.05). However, after adjustment for important baseline factors, the risk of in-hospital mortality between blacks and whites was attenuated and not different (OR 0.9; 95% CI 0.3-2.6). In-hospital death/MI rates were similar (4.3% black, 2.7% white, 2.7% Hispanic, 0.6% Asian). At 1 year, cumulative death (2.2%, 4.0% black, 6.3% Hispanic, 7.6% Asian) and repeat PCI/CABG (19.3%, 18.7% black, 14.5% Hispanic, 22.5% Asian) rates among the minority/ethnic groups did not differ from whites.

Conclusions: Considerable differences in patient demographics, clinical presentation, angiographic characteristics and treatment strategies by ethnic minority groups existed. Despite these differences, the incidence of acute complications and one-year adverse outcomes among minority groups was similar to whites.

Angioplasty Versus Coronary Artery Bypass Surgery in Patients With Chronic Kidney Disease
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Background: Patients with chronic kidney disease (CKD) are at increased risk of death following PCI or CABG. There is limited data comparing these two strategies in patients with CKD. Methods: We analyzed the PCI and CABG registries. CKD was categorized by the Modification of Diet in Renal Disease (MDRD) equation (GFR >60 ml/min/1.73 m2, 30-59 ml/min/1.73 m2, or <30 ml/min/1.73 m2). Other exclusion criteria included left ventricular ejection fraction (LVEF) <30%, history of malignancy, peripheral vascular disease (PVD), and peripheral vascular disease (PVD). Results: Of TARGET’s 4809 patients, 4736 had femoral access, and 985 of these had a sheath removed 2-6 hours post-procedure when the activated clotting time (ACT) was >175. One had TIMI 3 flow and only one was left with TIMI 0 flow. Conclusion: Aminophylline appears to obviate the need for a prophylactic temporary pacemaker and may become the preferred primary method for prevention of bradycardia during rheolytic thrombectomy.

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