

	Women (n=511)	Men (n=820)	p Value
Age yrs (mean±SD)	79±5	78±6	ns
Diabetes (%)	40	33	0.007
Hypertension (%)	74	58	<0.0001
Hyperlipidemia (%)	48	37	<0.0001
Prior MI (%)	29	39	0.0002
Prior PCI/CABG (%)	18	35	<0.0001
ST Elevation (%)	50	44	ns
Admission Killip Class≥II (%)	34	33	ns
Q-wave (%)	47	42	ns
Thrombolysis (%)	32	30	ns
Coronary Angiography (%)	46	50	ns
Primary PCI in STE pts (%)	15	16	ns
Aspirin (%)	89	90	ns
Beta-Blockers (%)	61	61	ns
ACE inhibitors (%)	57	60	ns
Statins (%)	41	36	ns
7-day Mortality (%)	11.6	7.2	0.007
6-month Mortality (%)	21	19.4	ns

1070-133

Increased Capillary Fluid Filtration Rate in Elderly Subjects With Symptomatic Hypotension During Head-Up Tilt Table Testing

Scott L. Hummel, Mathew Maurer, Columbia University, New York, NY

Background: Progressive orthostatic hypotension during head up tilt table testing is common in elderly subjects. The role of venous pooling in the genesis of symptomatic hypotension is unknown. We compared the degree of venous pooling in the lower limb during head up tilt in a cohort of healthy elderly persons with and without symptomatic progressive orthostatic hypotension.

Methods: 33 subjects, age 77±9 years (range 61-96 years), 64% female underwent head up tilt table testing (TTT) at 60° for 30 minutes or until symptomatic hypotension. Strain gauge plethysmography of the calf was performed during head up tilt with the capacitance response (Va) determined from the volume increase at the onset of tilt to the line defined by the filtration slope (Jv) that represents the rate of fluid filtration during orthostatic stress.

Results: Six subjects (18%) had symptomatic hypotension (SH) necessitating premature termination of the TTT after 11±6 minutes most of whom exhibited a progressive form of orthostatic hypotension. Age, gender and resting blood pressure and heart rate did not differ between subjects with and without SH. Venous capacitance (Va) did not differ (2.2 ± 0.3 ml/100 ml vs 2.1 ± 0.9 ml/100 ml, p=0.7) but the rate of fluid filtration (Jv) was more than double in subjects with SH compared to elderly subjects without SH (0.4±0.28 vs 0.16±0.09 ml/100 ml/min, p=0.08).

Conclusions: While venous capacitance is not different in elderly subjects with and without SH during head up TTT, the rate of fluid filtration is higher in subjects with SH. These data suggest that a more precise understanding of the factors that affect venous pooling during upright posture may help clarify the pathophysiology of orthostatic tolerance in elderly subjects.

1070-134

Effect of Successful Percutaneous Coronary Intervention on 30-Day Mortality in Elderly Patients With Acute Myocardial Infarction

Daisaku Nakatani, Hiroshi Sato, Kunihiro Kinjo, Hiroya Mizuno, Masahiko Shimizu, Masatsugu Hori, Osaka University Graduate School of Medicine, Internal Medicine and Therapeutics, Suita, Japan

Background: Several randomized and observational studies demonstrated that percutaneous coronary intervention (PCI) is alternative reperfusion strategy to thrombolysis in elderly patients with acute myocardial infarction (AMI). However, there are few evidences of the effect of successful PCI on mortality in elderly patients with AMI. **Methods and Results:** To examine the effect of successful PCI on 30-day mortality in elderly patients, we studied 2406 patients who were registered in the Osaka Acute Coronary Insufficiency Study (OACIS) and who were treated with PCI within 24 hours after onset of AMI. These patients were divided into 3 groups according to age (<65y; n=1200, 65-74y; n=750, ≥75y; n=456). We compared risk ratio of 30-day mortality in successful PCI, defined as achieving final TIMI grade 3 flow, in each age group. In each 3 group, the 30-day mortality rate was lower in patients with successful PCI than those without successful PCI (<65y; 2.2% vs 4.4%, P=0.08), (65-74y; 4.8% vs 18.4%, P<0.01), and (≥75y; 7.5% vs 18.8%, P<0.01), respectively. After adjustment for clinical variables, the risk reduction for 30-day mortality in successful PCI group compared with that in unsuccessful PCI group was greater for patients in the 65-74y group (risk ratio [RR], 0.34; 95% CI; 0.13-0.94, P=0.04) and in the ≥75y group (RR; 0.28, 95% CI; 0.10-0.78, P=0.02) than those in the <65y group (RR; 0.59 95% CI; 0.13-2.82, P=0.51). The incidence of major bleeding was similar among the 3 groups, even in patients treated with stent implantation. **Conclusion:** Compared to the younger patients, the beneficial effect of successful reperfusion on 30-day mortality is greatest in the elderly patients with AMI. Therefore, strategy to achieve TIMI grade 3 flow is crucial, especially in elderly patients with AMI.

ORAL CONTRIBUTIONS

806 Myocarditis

Monday, March 08, 2004, 9:15 a.m.-10:30 a.m.
Morial Convention Center, Room 217

9:15 a.m.

806-1

Pattern of Cardiac Isoenzyme Elevation in Probable Smallpox Associated Myocarditis

Robert E. Eckart, Dimitri C. Cassimatis, John E. Atwood, Suzanne S. Love, Charles L. Campbell, Wayne Scott, Renata J. M. Engler, Limone C. Collins, Mark K. Arness, James R. Riddle, John D. Grabenstein, for the Dept of Defense Smallpox Vaccination Clinical Evaluation Team, Brooke Army Medical Center, Fort Sam Houston, TX, Walter Reed Army Medical Center, Washington, DC

Introduction: As of 31 July 2003, a total of 53 military personnel were identified with confirmed or probable acute myopericarditis following smallpox vaccination. The diagnosis was frequently made based on elevation of cardiac isoenzymes and ECG manifestations of diffuse ST-segment elevation. We sought to determine the range and pattern of cardiac isoenzyme elevation in the patient presenting with probable smallpox associated myocarditis.

Methods: The cases were identified either through active or passive surveillance. We examined cardiac enzymes of patients presenting with probable vaccinia associated myocarditis.

Results: There were 47 patients (mean age, 27±5 years) who had 397 biochemical assays [creatinine kinase (CK), creatine kinase-MB (CKMB) isoform, and troponin-I] available for review. The mean troponin-I on presentation was 10.5±23.4 ng/mL, with no statistically or clinically significant decrease in troponin-I between 6-24 hours (10.5±15.7 ng/mL) and 24-48 hours (10.1±19.0 ng/mL). There was a clinically significant decrease in troponin-I after 48 hours (4.9±4.7 ng/mL) and after 96 hours (0.02±0.02 ng/mL). There was a statistically significant difference in isoenzyme levels at time of presentation compared to samples obtained within 24-48 hours of presentation of both CK (447±345 vs. 188±138 IU/L, p<0.001) and CKMB (22.6±28.9 vs. 11.5±12.4 ng/mL, p=0.047). The mean peak troponin-I of 14.8±26.5 ng/mL occurred at a median of 6.7 hours from presentation, and the mean CKMB of 438±339 ng/mL occurred at a median of 5.9 hours from presentation. When comparing those with (n=15) and without (n=19) ST elevation on presenting ECG, there was a clinically significant difference in peak troponin-I (25.6±40.0 vs. 7.3±9.2 ng/mL, p=0.09) and CK (510±380 vs. 315±231 IU/L, p=0.07).

Conclusions: Unlike the characteristic rise and fall of biochemical assays in acute myocardial infarction, patients with probable vaccinia associated myocarditis present with peak elevation of cardiac enzymes, and may have a sustained elevation of troponin-I for up to 4 days after presentation. There may be an association between quantitative injury and ECG findings in acute myopericarditis.

9:30 a.m.

806-2

Is Sporadic Arrhythmogenic Right Ventricular Cardiomyopathy an Infectious Disease?

Bernhard Maisch, Sabine Pankuweit, Renu Virmani, Philipps-University, Marburg, Germany, Armed Forces Institute, Washington

Background: Genetic predisposition is verified in arrhythmogenic right ventricular cardiomyopathy (ARVC), however, infection and inflammation are discussed as concomitant etiopathogenetic factors particularly in sporadic forms.

Methods: 18 post mortem and 4 right ventricular biopsy specimens from patients with histologically validated fibrofatty degenerative ARVC (14 males, 8 female; mean age 31.1±18.2 years; 18 died from sudden death, 4 alive with VT) were examined for infiltrating lymphocytes by mabs to CD45Ro(actT), CD3(T), CD8(Th), CD20(B), and by PCR to the RNA of entero-(EV), the DNA of adeno-(AV), cytomegalo(CMV), Ebstein Barr Virus (EBV), Parvo B19(PB19) or Borrelia (Borr).

Results: Sparse accumulation (<7 but > 3/mm²) of CD45Ro positive cells was found in 9/22 patients (40.9%), a substantial act T or T-cell infiltrate (>14/mm²) in 1/20 patients (4.7%) only. Mab to a-actinin gave incoherent binding in 7 from 21 pts (33.3%), so demonstrating structural abnormalities. The incidence of virus positive probes were remarkably high, when compared to controls (n=50)(% positive):

Conclusions: The data substantiate a possible role of viral infection in the pathogenesis of sporadic ARVC.

Number of detected viruses [% positive]

Virus	EV	ADV	CMV	EBV	PB19	Borr	total
ARVC	4.5	18.2	9.1	4.5	9.1	0	45
Control	0	2	2	0	0	0	8