

2:30

**THE EFFECT OF CIGARETTE SMOKING ON SURVIVORS OF A SINGLE MYOCARDIAL INFARCTION**

Laurie L. Fitch, James W. Johnson, John P. Matts, Henry Buchwald, and the POSCH Group. University of Minnesota, Minneapolis, MN

The effect of smoking on arteriographically documented atherosclerotic coronary heart disease (A-CHD), total mortality (TM), atherosclerotic coronary heart disease mortality (CHD-M), and MI was examined in 334 control group patients from the Program on the Surgical Control of the Hyperlipidemias. The male and female patients were between the ages of 30 to 64 years, had elevated cholesterol levels, had suffered a single MI and included 128 current smokers (CS) and 206 former smokers (FS) at entry into the study. At 3, 5, 7, and 10 years of follow-up, there were no differences in A-CHD progression from baseline for CS vs FS as assessed by visual readings of the paired coronary arteriograms by two cardiologists blinded to the temporal order of the films and to the patient's smoking status. Below is shown the relative risk (CS vs FS) at up to 10 years of follow-up, without and with adjustment for age, HDL- and LDL-cholesterol, LV ejection fraction, quetelet index, and amount of coronary atherosclerosis at baseline, using Cox regression.

	TM	CHD-M	CHD-M+MI	
CS vs FS	2.4*	2.7*	2.0*	*p<.003
CS vs FS adjusted	2.6*	3.3*	2.4*	

**Conclusion:** Post-MI patients who continue to smoke, compared to post-MI patients who stop smoking, are at increased risk of death and recurrent MI. The lack of a difference in arteriographically documented coronary atherosclerosis progression between the two groups may indicate that other factors such as vasospasm or clotting mechanisms are involved.

2:45

**SHORT- AND LONG-TERM MORTALITY IN PATIENTS WITH INFERIOR Q-WAVE MYOCARDIAL INFARCTION COMPLICATED BY RIGHT BUNDLE BRANCH BLOCK**

François Ricou, Pascal Nicod, Elizabeth Gilpin, John Ross Jr. University of California, San Diego Medical Center, CA

In patients with inferior Q-wave myocardial infarction (IMI), it is unclear whether short- and long-term prognosis is influenced by the presence of right bundle branch block (RBBB). We therefore studied the clinical outcome of pts with IMI without (n:1489) and with RBBB (n:109).

Pts with RBBB were older (mean±SD: 67±11 vs 61±12 years), more often had a history of previous MI (35 vs 20%) or cardiac failure (17 vs 6%), and clinical evidence of left ventricular failure in hospital (48 vs 35%, all p<0.01). In-hospital and one-year post discharge cardiac mortalities in pts with RBBB were 11 and 14% compared to 6 and 5% in pts without RBBB (respectively, p<0.05 and p<0.001). On multivariate analysis, the presence of RBBB was an independent predictor of one-year post discharge mortality but not in-hospital mortality. The increased one-year post discharge mortality in pts with RBBB compared to patients without RBBB was seen both in pts with (19% vs 8.7%; p<0.06) and without (10.2% vs 2.7% ; p<0.02) clinical left ventricular failure in hospital. Outcomes of pts with old RBBB (25% of population) and new or of indeterminate age RBBB (75% of population) were not different. Occurrence of complete heart block in the hospital was not significantly different between pts with and without RBBB (15% vs 11%).

**Conclusion:** The presence of RBBB following inferior Q-wave MI: 1) identifies pts with increased one-year post discharge mortality who may benefit from further diagnostic and therapeutic procedures. 2) is not associated with a significantly higher incidence of complete heart block in hospital.

3:00

**The Impact of Thrombolytic and Antiplatelet Therapy on Coronary Heart Disease Mortality.**

Peter L Thompson MD FACC, Michael ST Hobbs MB DPhil, Konrad D Jamrozik MB DPhil, Richard Parsons Ph.D. Unit of Clinical Epidemiology and Dept of Cardiovascular Medicine, QEII Medical Centre, Perth, Australia.

While the efficacy of thrombolytic and antiplatelet therapy (Rx) has been documented in randomized clinical trials, the impact of these therapies in improving outcome in clinical practice has not been studied. We used data from 2874 cases of acute myocardial infarction (AMI) to study the impact of these therapies on coronary heart disease (CHD) mortality in the Perth community of ½ million persons aged 25-64. From 1984-1988, the use of thrombolytic Rx increased from 2% to 22% and antiplatelet Rx from 26% to 82% of cases of AMI treated in coronary care units (CCU). After correction for other determinants of outcome by logistic regression analysis, the relative risk of 0-28 day death for treated patients was compared with patients who received neither therapy. The relative risk was 0.9 (95% CI 0.5-1.7) for patients treated with thrombolytic Rx (n=453), 0.43 (0.3-0.6) for antiplatelet Rx (n=1577), and 0.35 (0.2-0.7) for the combination (n=297). Of the coronary deaths in the community, only 33% of deaths in the community occurred in hospital and only 53% of the hospital deaths occurred in CCU. Thus the maximum impact on CHD mortality of antiplatelet and thrombolytic Rx was 0.33 x 0.53 x 0.35 = 0.06 or 6%. Because of the larger number of patients treated, antiplatelet therapy had greater effect on mortality than thrombolytic therapy.

3:15

**DECLINING CORONARY HEART DISEASE MORTALITY AND MORBIDITY IN MALMÖ SWEDEN.**

Ole Hansen, Bengt W. Johansson, Section of Cardiology General Hospital, Malmö, Sweden.

A substantial decline in coronary heart disease (CHD) mortality has been observed in several industrialized countries, but due to shortcomings in measures of CHD morbidity it is still unclear whether the decline in mortality is due to a decline in morbidity, case fatality, or both. In Malmö, a community with a stable and defined population of 230,000 inhabitants, completeness in case finding and a homogeneous case ascertainment is facilitated by the facts that the whole population is served by only one hospital, and that the autopsy rate exceeds 80%. A continuous monitoring of myocardial infarction (MI) incidence since 1935 shows an increasing morbidity until the mid-1970s and then a declining trend. The decline in morbidity was followed by a decline in mortality.

	Year	>70 yr		60-69 yr		50-59 yr
		Men	Women	Men	Women	Men
CHD-mortality	1975	3,138	1,829	1,018	256	335
	1986	2,607	1,607	940	240	358
	change %	-17	-12	-8	-6	+7
MI-incidence	1975	1,326	828	779	293	433
	1986	1,217	672	660	222	411
	change %	-8	-19	-15	-24	-5
MI in-hosp. case fatality	1975	41	44	24	22	10
	1986	28	29	13	19	11
	change %	-32	-34	-46	-14	+10

It is concluded that in Malmö the decline in CHD mortality seen in most age groups is explained partly by a decline in CHD morbidity, but that also a decline in in-hospital case fatality of MI has contributed.