1099-87 **Symptoms Persist in Patients With Chronic Angina Despite Frequent Anti-Anginal Use and Prior Revascularization**

George Vetrovec, Jennifer Watson, Bernard Chaitman, Robert Cody, Nanette Wenger, Medical College of Virginia, Virginia Commonwealth University, Richmond, VA, CV Therapeutics, Palo Alto, CA

Background: Chronic angina (CA) remains a significant clinical problem. However, contemporary patient (pt) demographics or treatment descriptions are lacking. Methods: To assess current CA pt profiles, we retrospectively surveyed 32 cardiology practices. A majority of practices were private, but 29% were academic and represented diverse US locations: 44% from the Midwest, 31% from the South and 12.5% each from the West and Northeast. Outpatient charts of pts with a diagnosis of angina seen at least yearly were randomly selected at each site. Local staff abstracted standardized data with oversight by a trained nurse who assured consistent data collection at all sites. Results: Data were available for 1,957 pts (65% male, 75% Caucasian) with a mean age of 65.6 ± 13 (SD) yrs (range 18-97 yrs). Prior revascularization occurred in 56% of pts including percutaneous coronary intervention (PCI) in 39% of pts (of which 12% had more than one PCI and 4% more than one coronary artery bypass surgery (CABG)). Co-morbidities included prior myocardial infarction - 32%, hypertension - 70%, diabetes - 32%, CHF - 19% and COPD - 12%. Bradycardia (≤60 bpm) was noted in 20% of pts. Angina occurred in 92% of pts, varying from one or more attacks per month in 66% of pts to 34% with at least one episode per week, regardless of prior revascularization. More than two attacks per day occurred in 4%. Chronic anti-anginal medications (beta-blockers, calcium blockers, and long-acting nitrates) were used by 88% of pts with 49% on mono-therapy, 33% on dual-therapy and 6% on triple therapy. Beta-blockers were used most commonly as mono-therapy. One or more episodes of angina per week occurred in 30% of pts on monotherapy, 39% on dual therapy and 53% on triple therapy. Conclusion: Data from this national chart review demonstrate CA remains an important problem with as many as 2/3 of pts having at least one vascular co-morbidity. Angina symptoms occurred in 92% of pts despite anti-anginal medication use in 88%, and revascularization performed in 56%. Furthermore, one or more episodes of angina per week occurred in 34% of all pts and in 53% of pts on triple therapy, illustrating high angina symptom frequency.

1099-88 **Syncope After Myocardial Infarction: Clinical and Electrophysiological Prognostic Factors**

Beatrice Brembilla-Perrot, Christine Suty-Selton, Daniel Beurrier, Pierre Houriez, Arnaud Terrier De La Chaise, Olivier Claudon, Pierre Louis, Nicolas Sadoul, Hughes Blangy, Marius Andronache, CHU of Brabois, Vandoeuvre Les Nancy, France

Background : the causes of syncope in patients (pts) with history of myocardial infarction (MI) are various, sometimes at high risk of sudden death (SD). The purpose of the study was to evaluate the factors useful to predict the prognosis of these pts. Methods : 229 pts with MI (> 1 month) and without documented ventricular tachycardia (VT) were admitted for syncope. Holter monitoring (HM), measurement of left ventricular ejection fraction (LVEF) and complete electrophysiological study were systematic. Results : pts were divided into 2 groups according to LVEF, 119 with LVEF less than 40 % (group I) and 110 pts with LVEF higher than 40 % (group II). Sustained monomorphic VT (< 280 b/min) was induced in 44 group I pts (37%) and 18 group II pts (16 %) ($p < 0.05$); ventricular flutter (270 b.min and more) or fibrillation (VF) was induced in 24 group I pts (19 %) and 19 group II pts (17 %) (NS). Nonsustained (NS) VT on HM in group II were noted in 46 % of pts with induced VT or VF and 14 % of pts without VT/VF ($p < 0.05$ %) ; the differences were not significant in group I. Various other causes for syncope (conduction disturbances, coronary ischemia, neurally-mediated syncope or rapid atrial tachyarrhythmias) were noted in 23 group I pts (19 %) and in 32 group II pts (29 %) ($p < 0.05$). Syncope remained unexplained in 43 group I pts (36 %) and in 40 group II pts (36 %) (NS). During follow-up (mean 3 years+/-1), total cardiac mortality, in group I, was 49 % in pts with induced VT, 35 % in those with induced VF and 9 % in those without induced VT/VF; in group II, cardiac mortality was 5.5 % in pts with induced VT, 5 % in those with induced VF and 4 % in those without VT/VF. Statistical analysis indicated that induction of VT, VF and LVEF < 40 % were predictors of total cardiac mortality (odds ratio respectively 6.275, 3.406, 3.109) and only VT induction and LVEF < 40 % were predictors of SD (odds ratio 8.978, 9.434). NS VT on HM were not predictors of death. Conclusion : LVEF, at first, should be considered in pts with MI and syncope. Only pts with LVEF < 40 % and inducible VT or VF were at risk of cardiac mortality ; those with inducible VT and LVEF < 40 % were at risk of SD; the prognosis of pts with LVEF >40 % was favourable and did not depend on the results of programmed stimulation.

1099-89 **The Incidence of Clinically Unrecognized Myocardial Infarction in Patients With Type 2 Diabetes, Hypertension, and Nephropathy**

David Aguilar, Samuel Z. Goldhaber, Daniel J. Gans, Andrew S. Levey, Jerome G. Porush, Julia B. Lewis, Jean-Lucien Rouleau, Tomas Berl, Edmund J. Lewis, Marc A. Pfeffer, The Collaborative Study Group, University of Texas Health Science Center, Houston, TX, Brigham and Women's Hospital, Boston, MA

Background: Clinically unrecognized myocardial infarctions (MI) account for about 20-40% of all MI. Individuals with diabetes may be particularly susceptible to the development of clinically unrecognized MI.
Methods: The Irbesartan Diabetic Nephropathy trial randomized 1715 hypertensive patients with nephropathy and type II diabetes mellitus to test the effects of antihypertensive therapy on the progression of nephropathy. Participants underwent electrocardiograms at entry into the study and at months 6, 12, 24, 36 and 48. 1387 participants had baseline electrocardiograms performed considered adequate for subsequent identification of Q wave MI. A clinically unrecognized MI was defined as a follow-up electrocardiogram demonstrating a new Q wave MI in the absence of a reported clinical event.
Results: During the average follow-up of 2.5 years, 14 of the 99 first nonfatal MI were clinically unrecognized, accounting for 14% (95% CI 8.2%, 22.9%) of all first nonfatal MI in this clinical trial. No statistical difference was noted in baseline characteristics and post-randomization outcomes between patients with clinically recognized and unrecognized nonfatal MI.
Conclusion: Despite increased awareness of the link between clinically unrecognized MI, diabetes, and hypertension, the frequency of clinically unrecognized MI remains high in this population of hypertensive diabetic patients with nephropathy.

	Clinically Unrecognized MI (n=14)	Clinically Recognized MI (n=85)	No MI (n=1279)
Age-yr (± s.d.)	58.6 (12.4)	59.6 (7.5)	58.4 (7.8)
Male sex-no. (%)	12 (85.7)	63 (74.1)	820 (64.1)
Body-mass index (±s.d.)	29.4 (6.8)	32.1 (5.4)	30.8 (5.8)
Blood pressure (±s.d.) Systolic Diastolic	156 (27) 88 (15)	163 (20) 85 (10)	159 (19) 87 (11)
Insulin use at entry-no. (%)	8 (57.1)	60 (70.6)	695 (33.3)
Duration of diabetes, yr (±s.d.)	15.8 (7.4)	15.3 (7.7)	14.7 (8.1)
Retinopathy- no (%)	7 (58.3)	59 (72.0)	853 (69.9)
Serum Creatinine-mg/dL (±s.d.)	1.5 (0.4)	1.7 (0.5)	1.4 (0.2)
Protein excretion rate-mg/d (±s.d.)[1]	2685 (2146)	3846 (2970)	2962 (2348)
Glycosylated hemoglobin-% (±s.d.)	8.3 (1.7)	8.3 (1.8)	8.1 (1.7)
History of Neuropathy-no. (%)	6 (42.9)	40 (50.0)	605 (50.1)
History of cardiovascular disease-no. (%)	7 (50.0)	53 (62.4)	517 (40.4)
History of Angina- no. (%)	3 (21.4)	15 (17.9)	162 (12.7)
History of Heart Failure-no. (%)	2 (14.3)	7 (8.2)	78 (6.1)
Outcomes-no. (%): Death End-Stage Renal Disease CV Death Heart Failure	2 (14.3) 2 (14.3) 1 (7.1) 7 (50)	21 (24.7) 13 (15.3) 16 (18.8) 29 (34.1)	157 (12.3) 224 (17.5) 67 (5.2) 127 (9.9)

* Means and percentages reflect patients with non-missing data; 1 geometric mean

1099-90 **Health Related Quality of Life Is Not Improved in Parallel to Chest Pain Symptoms in a Nonselected Population of Patients With Coronary Artery Disease**

Anna Kiessling, Peter Henriksson, Karolinska Institute, Stockholm, Sweden

Purpose: To assess and compare the time trends of Health Related Quality of Life (HRQL) and the prevalence and severity of chest pain in a non-selected population of patients with coronary artery disease (CAD).
Methods: 253 consecutive unselected pts 70 yrs or younger with CAD in Stockholm County Council, Sweden, were followed during two years. HRQL was estimated once a year by 2 different methods yielding a global estimate (0-1): the descriptive disease specific Cardiac Health Profile (CHP) questionnaire, and the generic EuroQol-VAS (EQ). The existence and degree of current angina pectoris was ranked according to the Canadian Cardiovascular Society (CCS; 0-4) classification.
Results: 253 pts (197 males and 56 females) with a mean age 60.1±7.5 years, were included. 220 were possible to follow during the two years. CCS grading (0-4) was performed at start-1 yr-2 yrs in counts (percent) as follow: CCS 0; 100-116-114 (39-45-44%) CCS 1; 47-32-33 (18-12-13%) CCS 2; 75-61-58 (29-24-23%) CCS 3; 17-11-11 (7-4-4%) CCS 4; 11-6-4 (4-2-2%). Prevalence and severity of angina decreased during the two year follow-up (p=0.001).
The pts rated their HRQL at start significantly lower than that of healthy controls by both methods. In contrast to CCS, no change in any of the two HRQL measures could be detected during the two years, CHP; 0.66-0.66-0.66 (SD 0.18-0.18-0.17) and EQ; 0.67-0.66-0.67 (SD 0.20-0.20-0.22).
Conclusion: HRQL didn´t increase despite a reduction in the prevalence and severity of chest pain during a two year follow-up in a non-selected population of patients with CAD. This implicate that a major part of the HRQL in these patients is not related to chest pain symptoms.