Abstracts of Original Contributions: 44th Annual Scientific Session

The American College of Cardiology is pleased to announce that nearly 6,500 abstracts of original contributions were submitted to the Program Committee of the 44th Annual Scientific Session, including computer applications submissions. Space and time considerations this year allowed the selection of 1,770.

Each abstract was peer reviewed by a panel of graders; chosen abstracts are presented in either oral, poster, or computer format.

The American College of Cardiology thanks the thousands of abstract participants and the hundreds of category graders and chairmen for their efforts.

Bruce H. Brundage, MD, FACC
Chairman
1995 Annual Scientific Session Program Committee

William A. Gay, Jr., MD, FACC
Co-Chairman
1995 Annual Scientific Session Program Committee

901 Key Contributions

Sunday, March 19, 1995, 7:00 p.m.–9:00 p.m.
Ernest N. Morial Convention Center, Hall E
Presentation Hour: 7:00 p.m.–9:00 p.m.

ACUTE MYOCARDIAL INFARCTION — BASIC

901-1 A Prospective, Randomized Trial Evaluating Early Discharge (Day 3) without Non-invasive Risk Stratification in Low Risk Patients with Acute Myocardial Infarction: PAMI-2

Bruce Brodie, Cindy L. Grines, Michael Spain, John Griffin, Carlos Balestrini, Gregg W. Stone, Costantino Costantini, Paolo Esente, Michael Ayres, Masakiyo Nobuyoshi, Bryan Donohue, Noah Chelliah, Donald Rothbaum, Thomas Wharton, Jr., Denise Jones, Denise Mason, Debra Sachs, William W. O'Neill. *Moses Cone Hospital, Greensboro, NC; William Beaumont Hospital, Royal Oak, MI*

Few data exist regarding the need for noninvasive testing after reperfusion therapy in myocardial patients at low clinical risk. Moreover, after thrombolysis, recurrent ischemia occurs frequently and unpredictably and has resulted in physician reluctance to shorten the length of hospitalization in these patients. Alternatively, emergency catheterization with primary PTCA may provide acute determination of risk status, a stable method of reperfusion and the potential for early discharge. The objective of this multicenter study was to prospectively test the hypothesis that early discharge (day 3) without non-invasive risk stratification in low risk MI patients treated with primary angioplasty is safe, feasible, and cost effective. Patients with acute myocardial infarction 0–12 hrs who had an emergency catheterization and immediate PTCA of the infarct related artery were stratified into a low risk group if age $\leq$70 yrs, 1 or 2 vessel disease, EF > 45%, successful infarct vessel PTCA and no malignant arrhythmias persisted after the PTCA. Low risk patients were randomized to admission to either the intensive care unit (with hospitalization a minimum of 5 days and predischarge exercise testing) or admission to a non-intensive care PTCA unit with no non-invasive testing and discharge on day 3. To date, 340 of the anticipated 400 patients have been enrolled. The mean age was 56 ± 9, estimated ejection fraction 56 ± 9 and 74% had single vessel disease. As expected, in-hospital complications occurred infrequently; death 1.1%, recurrent MI 1.7%; stroke 0.6%; heart failure 4.6%. At 1 week follow-up, no complications attributed to early discharge have occurred. Thus, acute catheterization does allow identification of low risk MI patients who can be safely admitted to an elective PTCA unit and discharged in 3 days without additional testing. Complete data on the 400 patient cohort including cost and 6 week follow-up will be available by March 1995.

901-2 Randomized, Double-Blind Multicenter Trial of a Novel Modified t-PA, E6010 by i.v. Bolus Injection in Treatment of Acute Myocardial Infarction (AMI) — Comparison with Native t-PA

C. Kawai, S. Hosoda, Y. Yui, S. Kimata, K. Kanmatsuse, S. Suzuki, T. Motomiya, Y. Yabe, F. Takatsu, K. Kodama, R. Minamino, H. Sato, M. Nobuyoshi, M. Nakashima, E6010 study group. *Kyoto Univ., Tokyo Women's Med. College, Kyoto Univ. Hosp., Surugadai Nihon Univ., Sakakibara Memorial Hosp., Tokyo Metropol. Hiroo General Hosp., Toho Univ., Anjo Kosei Hosp., Osaka Police Hosp., Sakurabashi Watanabe Hosp., Hiroshima City Hosp., Kokura Memorial Hosp., Hamamatsu Univ., Japan*

E6010 is a novel modified t-PA, in which cysteine 84 in the epidermal growth factor domain has been replaced by serine. This is the first modified t-PA to be effective by i.v. bolus injection, and it has a prolonged half-life ($T\alpha 1/2$ > 20 min) compared to native t-PA.

A randomized, double-blind multicenter trial of i.v. bolus injection of E6010, 27,500 EU/kg, compared with native t-PA (cell culture), 14,400,000 IU has been performed in the treatment of AMI of $\leq$6 hr duration and total occlusion of the infarct-related arteries. Angiograms were used to evaluate the patency of infarct-related arteries at 15, 30, 45, and 60 minutes after the administration. *Result:*

		% Recanalization Rate (TIMI grade 2 or 3)			
		15 min.	30 min.	45 min.	60 min.
E6010	n = 97	36.5	61.9	73.7	79.4
native t-PA	n = 102	13.7	32.4	49.5	64.7

The time to reperfusion with E6010 was shorter than that with native t-PA. Coronary recanalization at 30 and 60 minutes after administration was obtained in 61.9% and 79.4% of the case with E6010 and in 32.4% and 64.7% of the case with native t-PA, and the difference between both were statistically significant. No fatal bleeding complications were observed in E6010. 4 patients (3.8%) in E6010 and 3 patients (2.8%) in native t-PA died during 48 days post treatment hospitalization.

Discussion and Conclusion: Native t-PA is required to be administered over period of 1 hr with 10% of the total dose administered as an i.v. bolus and the remainder infused i.v. over 1 hr. Our present results indicate that E6010 can be easily administered by i.v. bolus injection taking 2–3 minutes and it exerts a valuable thrombolytic effects, namely a high rate and early recanalization of infarct-related arteries.

901-3 The Potential for Unexpected Hazard of Intravenous Beta-Blockade for Acute Myocardial Infarction: Results from the GUSTO Trial

Sorin J. Brener, Jafna L. Cox, Matthias E. Pfisterer, Paul W. Armstrong, Robert M. Califf, Eric J. Topol, GUSTO Investigators. *Cleveland, OH; Toronto, Ontario; Basel, Switzerland*

To evaluate the role of immediate intravenous (IV) β blockade in patients treated with thrombolytic agents and aspirin for acute myocardial infarction, we compared the outcome in the group of patients enrolled in the GUSTO trial who received atenolol IV followed by oral dose (gr.A, n = 16406) with