

polymorphic VT, while A and L were equally effective in hemodynamically unstable sustained monomorphic VT. Patients with polymorphic VT and a wide QRS were more likely to convert with A while L was ineffective in these patients.

1154-98

### Ventricular Fibrillation Triggered by Thoracic Compression During Out-of-Hospital Cardiac Arrest Resuscitation in the Piacenza Vita Project

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**Background.** Decreasing the delay to defibrillation by introducing the automated external defibrillators (AEDs) has increased the number of potential first responders. The role of CPR training in lay first responders is still debated and data on the benefit of sterno-thoracic compression when a spontaneous cardiac rhythm (SCR) has been recovered are scanty. We examined whether: 1) CPR may influence survival; 2) sterno-thoracic compression after recovery of SCR has beneficial effects.

**Methods.** Piacenza Progetto Vita (PPV) involves 2631 lay volunteers trained by a 4 hour course to intervene only with the AED in cases of suspected sudden cardiac arrest (SCA). 135 consecutive cases of SCA with ventricular fibrillation (VF) were treated. Survival rate was evaluated, and EKG tracing was analyzed where early defibrillation performed by lay volunteers was followed by traditional CPR by EMS.

**Results.** 77/135 cases were treated by PPV volunteers and 58/135 by EMS. Survival rate from shockable rhythm was 32% (25/77) in PPV group vs 18% (11/58) in EMS group ( $p < 0.05$ ). The EKG analysis of 25 survivors of group PPV showed: 1) 19 pts had more than 1 episode of VF (1.9 VF/pt) for a total of 36 episodes; 2) the time from effective shock and the first spontaneous QRS was  $16.2 \pm 17.1$  sec (median 3-48 sec); 3) the mean rate of first SCR was  $34 \pm 12$  bpm; 4) sinus rhythm was present as first SCR after 12 (31%) ventricular fibrillation; 4) sinus rhythm compared earlier than wide QRS ( $4 \pm 2$  sec vs  $28 \pm 12$  sec,  $p < 0.001$ ); 5) chest compression was performed in 22 cases irrespective of the presence of SCR. In 14 cases sterno-thoracic compression was directly associated with VF induction;

**Conclusion.** Defibrillation alone increase survival in out of hospital cardiac. Post defibrillation sterno-thoracic compression may trigger ventricular fibrillation. Sterno thoracic compression may be delayed of almost 30-60 seconds when spontaneous rhythm has been recovered.

## ORAL CONTRIBUTIONS

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### Innovative Strategies for Treating Acute Coronary Syndromes

Tuesday, March 09, 2004, 4:00 p.m.-5:00 p.m.  
Morial Convention Center, Room 257

4:00 p.m.

861-1

### Direct, Selective, Factor Xa Inhibition in Patients With Non-ST Elevation Acute Coronary Syndromes From the United States, Canada, and Japan: Results of the XaNADU-ACS Trial

John H. Alexander, Hongqiu Yang, Richard C. Becker, Kazuhisa Kodama, Christopher K. Dyke, Shaun G. Goodman, Neal S. Kleiman, Judith S. Hochman, Peter B. Berger, Eric A. Cohen, Michael Lincoff, Edwin G. Bovill, Chuichi Kawai, Paul W. Armstrong, Robert A. Harrington, Duke University Medical Center, Durham, NC

**Background:** New anticoagulants are needed for patients with non-ST elevation acute coronary syndromes (ACS). We investigated the efficacy and safety of a novel direct, selective, factor Xa inhibitor, DX-9065a (Daiichi Pharma. LTD, Inc.) compared to unfractionated heparin (UFH).

**Methods:** Patients with ACS from the US (n=313), Canada (n=45), and Japan (n=47) were randomized 1:1:1 to one of two blinded regimens of DX-9065a and UFH placebo or to weight adjusted UFH and DX-9065a placebo. DX-9065a was administered as a bolus, 3 hour rapid infusion, and maintenance infusion of 0.025 mg/kg, 0.04 mg/kg/hr; and 0.012 mg/kg/hr in one regimen and 0.05 mg/kg, 0.08 mg/kg/hr, and 0.024 mg/kg/hr in the other. The primary endpoint was death, MI, urgent revascularization, or recurrent ischemia on continuous ST-segment monitoring. Projected death, MI, urgent revascularization and recurrent ischemia rates were 3.0%, 9.0%, 4.5%, 30.0% for UFH.

**Results:** Enrollment was completed on September 8, 2003. Preliminary results are available on 339 patients. The trial remains blinded so aggregate baseline, in-hospital management, and outcome data by country are presented. \*includes CABG.

**Conclusions:** Direct selective, factor Xa inhibition may be an attractive alternative anticoagulant in patients with ACS. This is the first randomized experience with DX-9065a in ACS and will provide the basis for further phase 3 investigation. Complete efficacy and safety data from XaNADU ACS will be available at the ACC.

## Preliminary Results

	United States n=248	Canada n=45	Japan n=47	Overall n=399
Age (yrs)	56 (49,66)	64 (56,71)	68 (60,72)	59 (51,69)
Female (%)	30	23	38	30
Weight (kg)	87 (75,100)	83 (70,94)	60 (56,69)	82 (69,96)
Diabetes (%)	25	16	21	24
Hypertension (%)	53	59	53	54
Prior CHF (%)	7	7	4	6
Prior MI (%)	28	32	11	26
Aspirin (%)	92	82	96	91
B-Blocker (%)	83	90	32	76
ACE-I (%)	61	79	21	57
Lipid Rx (%)	80	79	30	72
GP IIb/IIIa (%)	71	47	0	57
Cath (%)	98	93	100	98
PCI (%)	54	43	62	54
CABG (%)	19	27	2	18
Death (%)	2	2	0	2
MI (%)	9	9	13	9
Urgent Revasc (%)	4	14	13	6
ST-monitor ischemia (%)	24	25	24	24
Composite (%)	25	32	36	28
TIMI Major Bleeding (%)*	14	25	2	14
TIMI Minor Bleeding (%)	7	5	7	6
Any Bleeding (%)*	33	57	30	36
Transfusion (%)*	12	21	4	12

4:15 p.m.

861-2

### Enoxaparin Versus Unfractionated Heparin in Patients Treated With Tirofiban, Aspirin, and an Early Conservation Initial Management Strategy: Results From the A Phase of the A to Z Trial

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**Introduction:** In high-risk patients with non-ST elevation acute coronary syndromes (ACS), enoxaparin (enox) is generally preferred to unfractionated heparin (UFH). However, few data are available comparing enox with UFH in patients receiving concomitant glycoprotein IIb/IIIa inhibitors.

**Methods:** The A phase of the A to Z trial randomized 3987 patients with non ST elevation ACS to receive either enox (n= 2026) or UFH (n= 1961) in combination with aspirin and tirofiban. Inclusion required either ST depression or cardiac biomarker elevation. While the selection of an early management strategy (invasive or conservative) was at the discretion of the local investigator, investigators were asked to designate their intent for an invasive or conservative strategy at the time of randomization. Comparison of enox with UFH in the subgroup of patients for whom an invasive strategy was planned is limited by the protocol design: crossover from enox to UFH was permitted at the time of catheterization. In contrast, in subjects for whom an early conservative strategy was planned, crossover was rare (4.4%), allowing a more direct comparison of the two anti-thrombotic strategies. The primary endpoint was a composite of all-cause mortality, new MI, and documented refractory ischemia within 7 days of randomization. Independent subjective and objective assessments of bleeding using TIMI definitions were collected.

**Results:** A conservative strategy was planned in 872 patients (44.6%) randomized to UFH and 906 patients (44.8%) randomized to enox. Among patients with a planned conservative strategy, the primary endpoint occurred in 10.6% of patients randomized to UFH and 7.7% of patients randomized to enox (HR 0.73; 95% CI 0.53-0.99). In this subgroup, the combined rate of TIMI major, minor, or loss no-site bleeding was 1.3% in patients treated with UFH and 1.8% in those treated with enox ( $p=0.44$ ).

**Conclusions:** When a conservative approach to catheterization and PCI was planned for patients receiving tirofiban and aspirin, enoxaparin was associated with superior efficacy and similar bleeding vs UFH.