prior to HUT predicts syncope and is primarily caused by decreased high frequency power.

3:00

719-5 Clinical Correlates and Prognostic Significance of the Frequency of Episodes of Nonsustained Ventricular Tachycardia in the Electrophysiologic Study versus Electrocardiographic Monitoring Trial (ESVEM)

Kelley P. Anderson, Motomi Mori, ESVEM Investigators. *University of Pittsburgh, Pittsburgh, PA*

Nonsustained ventricular tachycardia (VTns) predicts mortality in several settings but its significance in patients (pts) with a history of sustained ventricular tachyarrhythmias is unknown. Pts in ESVEM were randomized to guidance method and to drug independent of VTns events. We grouped pts (n = 486) by frequency of VTns events on baseline 48hr drug-free HM: G1 ≡ No VTns (n = 70), G2 ≡ >0 to <0.25 runs/h (n = 190), G3 ≡ ≥0.25 to <1 runs/h (n = 109), G4 ≡ ≥1 runs/h (n = 117). There were no significant differences ($p > 0.05$) between groups with respect to age, ejection fraction, functional class, presenting arrhythmia, prior exposure to antiarrhythmic drugs or guidance method. Data are presented in order of group number (Gr1, 2, 3, 4, respectively). Significant differences were observed for sex (29, 8, 13, 15 %female; $p = 0.0008$), previous myocardial infarction (6%, 10%, 22%, 23%; $p = 0.0002$), PVC/h (136, 146, 300, 735; $p < 0.0001$), pairs/h (1, 3, 12, 60; $p < 0.0001$), and mean heart rate (77, 74, 74, 80 bpm; $p = 0.0008$). Because the significance of VTns may vary in pts with different disorders, an analysis was restricted to pts with ischemic heart disease (IHD, n = 414). Significant differences were observed for age (63, 65, 64, 67 yr; $p = 0.01$), sex (23, 6, 10, 9 %female, $p = 0.0028$), years since last myocardial infarction (MI) (3.7, 8.9, 9.1, 7.9yr; $p < 0.0001$), history of operative revascularization (8%, 29%, 30%, 38%; $p = 0.0003$), for PVC/h (151, 149, 286, 769 PVC/h; $p < 0.0001$), mean pairs/h (1, 3, 12, 62; $p < 0.0001$), mean heart rate (76, 74, 76, 81bpm; $p = 0.004$), but not for ejection fraction, functional class, presenting arrhythmia, previous exposure to antiarrhythmic drugs, number of MIs, or angina since last MI. Variables based on presence/absence, on continuous and on stratified frequency measures of VTns events and the above variables were entered into a Cox proportional hazards regression model for: 1) pts discharged on a drug predicted to be effective, 2) all randomized pts (intention-to-treat), 3) pts with IHD. None of the VTns variables were significant independent predictors of arrhythmia recurrence or all-cause mortality. We conclude that significant clinical differences exist between groups of pts with different frequencies of VTns events. However, measures of VTns event frequency were not predictors of arrhythmia recurrence or mortality in this group of patients with known ventricular tachyarrhythmias.

3:15

719-6 Right Bundle Branch Block, ST Segment Elevation and Sudden Cardiac Death. Symptomatic, Asymptomatic and Intermittent Forms

Josep Brugada, Pedro Brugada [1]. *Hospital Clinic, University of Barcelona, Spain; Cardiovascular Center, Aalst, Belgium*

Objectives: We recently described a syndrome characterized by an electrocardiographic (ECG) pattern of right bundle branch block and persistent ST segment elevation in leads V1 to V3 in 8 patients (pts) suffering from aborted sudden death without structural heart disease. The objectives of the present study are to present new observations on this syndrome.

Methods: A total of 22 pts (mean age 40 ± 12 years) have been identified with the described ECG pattern. Of them, 17 were symptomatic with syncope and aborted sudden cardiac death. The other 5 pts were asymptomatic when first seen, however, 1 died suddenly after 6 years of follow-up without treatment and another received an implantable defibrillator after syncope. Subsequently, several episodes of ventricular fibrillation were terminated by the defibrillator in this pt. The other 3 pts remain asymptomatic without treatment. In 4 of 22 pts the ECG transiently normalized during follow-up.

Conclusions: The present observations demonstrate that there exist asymptomatic pts with this syndrome. These pts may become symptomatic during follow-up. It is difficult to set a therapeutic strategy for these asymptomatic pts at present. Our observations also show that the ECG can transiently normalize, suggesting that the disease is not based on a permanent structural cardiac abnormality, but rather on functional alterations of the electrical activity of the heart.

918 Clinical Studies of PTCA

Monday, March 20, 1995, 3:00 p.m.–5:00 p.m.
Ernest N. Morial Convention Center, Hall E
Presentation Hour: 3:00 p.m.–4:00 p.m.

918-16 Hemostatic Puncture Closure Device Versus Regular Compression: A Randomized Study

Bernard Chevalier, Bernard Lancelin, Xavier Berthaux. *C.C. Marie Lannelongue, Le Plessis-Robinson, France*

In order to assess the efficacy of a new hemostatic puncture closure device (HPCD) (Angioseal*), 100 patients who underwent coronary angiography (75) or coronary angioplasty (25), using femoral approach, were randomized between HPCD placement (N = 52) or regular compression (C) (manual or mechanical pressure then pressure dressing) (N = 48). Clinical data, anticoagulation regimen, sheath size, delay of sheath removal, aPTT at the removal were not statistically different in both groups. Pts were randomized immediately before the sheath removal. A serial clinical follow-up was done until 24 hours and a systematic vascular ultrasonography (with pulsed and color doppler examination) was performed before hospital discharge. In the HPCD group, device placement was successful in all but one. Hemostasis was immediate in 67%; in 8 pts (15%) a light manual pressure was necessary (15 ± 10 min.) to stop the bleeding. Results in the two groups were:

	C	HPCD	p
Compression time (min.)	29.3 ± 23.2	2.3 ± 6.7	<0.001
Hemostasis delay (min.)	29.3 ± 23.2	4.4 ± 9.7	<0.001
Pressure dressing time (hr.)	20.7 ± 5.2	2.0 ± 7.9	<0.001
Ambulation delay (hr.)	20.2 ± 5.4	10.8 ± 7	<0.001
Minor local event (%)	23	7	<0.05

(=hematoma and/or rebleeding or small AV fistula)

We noted no major local event (false aneurysm, transfusion, surgical repair) in both groups. In HPCD group, ultrasonography showed the resorbable anchor in 96% which was correctly flushed against arterial wall in 94%.

Thus, HPCD use allows a dramatic decrease in compression and pressure dressing time, an earlier ambulation and a significant reduction in minor local complication.

918-17 Limitations of Percutaneous Interventions in the Treatment of Bifurcation Lesions Involving the Left Anterior Descending Coronary Artery

Brian A. Armstrong, Jean-François Tanguay, Kevin R. Kruse, James P. Zidar, Michael H. Sketch, Jr., Robert H. Peter, Harry R. Phillips, James E. Tcheng, Richard S. Stack. *Duke University, Durham, NC*

Serious complications may occur when intervention is unsuccessful in bifurcation lesions involving the left anterior descending (LAD) and first major diagonal (D), because of the large amount of involved myocardium. To determine this complication rate, we reviewed 82 consecutive cases, over a 3 year period, in which these lesions were attempted. Sixty-six percent of the subjects were male, and 37% had unstable angina. The mean age was 59 and the mean ejection fraction was 56%. Digital calipers were used to measure vessel minimum lumen (MLD) and reference diameters. For the LAD the final MLD was 1.81 mm and for the D 1.32 mm. The final percent mean diameter stenoses for the LAD and D were 41% and 45%, respectively. There were no significant differences in the rates of success or complication between groups treated with angioplasty only (N = 68) or directional atherectomy (N = 14). The in-hospital event-free success rate was 55%. The in-hospital complication rates were:

Recurrent Ischemia	16%	Ventricular Tachycardia	2%
Myocardial Infarction	14%	Stroke	2%
Bypass Surgery	12%	Death	1%
Repeat Procedure	4%	Composite	34%

Conclusion: LAD bifurcation lesion intervention is associated with a high in-hospital complication rate. Since these lesions are not amenable to stent placement or atherectomy with simultaneous protection of both vessels, these cases should be carefully evaluated before intervention, and bypass surgery should be considered as a treatment option.