
To test the hypothesis that ventricular arrhythmias detected by ambulatory electrocardiography can stratify mortality risk in patients with ischemic and those with nonischemic dilated cardiomyopathy, clinical, hemodynamic and neurohumoral findings were evaluated in 31 patients. By Kaplan-Meier analysis, the total population had 51% survival at 12 months and 19% survival at 25 months. Subgroups based on peak complexity of ventricular arrhythmias included 9 patients with simple ventricular arrhythmias (peak Lown grades 1 to 3) and 22 patients with complex ventricular arrhythmias (peak Lown grades 4 or 5). Clinical variables and baseline catecholamine levels and renin-angiotensin system activity were similar in the simple and complex arrhythmia subgroups. Patients with simple and those with complex arrhythmias were comparable by all hemodynamic indexes except for a higher mean pulmonary capillary wedge pressure in the complex arrhythmia subgroup. Survival was strikingly related to arrhythmias: mortality was 11% (1 of 9) in the simple ventricular arrhythmia subgroup and 59% (13 of 22) in the complex ventricular arrhythmia subgroup (p less than 0.025 by log-rank test). Twelve patients died suddenly and 2 patients died in circulatory failure, and the risk of death was not affected by the etiology of cardiomyopathy. The higher mortality among the patients with complex arrhythmia could not be explained by the presence of elevated filling pressures alone. Thus, ambulatory electrocardiography can stratify mortality risk among patients with severe ischemic and nonischemic dilated cardiomyopathy.