Myocardial Ischemia And Arrhythmia

by M. Zehender

Incessant ventricular tachycardia as a manifestation of myocardial ischemia. Recent studies emphasize the importance of heart rate in the genesis of ventricular arrhythmias during myocardial ischemia. The role of alterations in rhythm has been extensively studied in porcine myocardial ischemia-reperfusion studies. Silent myocardial ischemia due to coronary artery spasm can initiate potentially fatal arrhythmias in patients without flow-limiting structural changes. Myocardial Infarction and Atrial Fibrillation Circulation: Arrhythmia. Abstract. To determine the incidence of ventricular arrhythmias related to episodes of transient myocardial ischemia during ambulatory electrocardiographic monitoring. Influence of residual myocardial ischemia on induced arrhythmias. - CiteSeerX Ischaemic heart disease presenting as arrhythmias. Myocardial ischemia is characterized by ionic and biochemical alterations, creating an unstable electrical milieu that predisposes to the development of ventricular arrhythmias. Ventricular arrhythmias in patients with myocardial infarction are often induced by myocardial ischemia. Increases in sympathetic activity are observed in patients with myocardial infarction and may contribute to the onset of ventricular arrhythmias. The mechanisms involved are complex and may involve changes in calcium handling, ATP-sensitive potassium channels, and myocardial stretching. The risk of ventricular arrhythmias in patients with myocardial infarction is influenced by several factors, including the extent of myocardial injury, the duration of ischemia, and the presence of underlying cardiac disease. Myocardial infarction is a major cause of death worldwide, and arrhythmias are a significant contributor to mortality. The incidence of ventricular arrhythmias in patients with myocardial infarction is higher than in the general population, and the risk is increased in patients with hypertension, diabetes, and chronic obstructive pulmonary disease. The predictors of arrhythmias in myocardial infarction include advanced age, left ventricular dysfunction, and the presence of complex ventricular arrhythmias. The management of ventricular arrhythmias in patients with myocardial infarction involves the use of antiarrhythmic drugs and device therapy. The therapeutic options include beta-blockers, amiodarone, sotalol, and catheter ablation. The choice of therapy depends on the type and severity of the arrhythmia, the patient's comorbidities, and the risk of recurrent events. The role of device therapy in the prevention of ventricular arrhythmias in patients with myocardial infarction has been extensively studied. The use of implantable cardioverter-defibrillators (ICDs) has been shown to reduce mortality and prevent sudden cardiac death in patients with myocardial infarction and high-risk ventricular arrhythmias. The use of ICDs in patients with myocardial infarction and ventricular arrhythmias is recommended by current guidelines. The optimal duration of ICD therapy in patients with myocardial infarction is not well established, and the decision to continue therapy should be individualized. The role of device therapy in the management of ventricular arrhythmias in patients with myocardial infarction is evolving, and ongoing research is needed to optimize therapy and improve outcomes.