key points

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Cardiomyopathies can be defined as:
'...a heterogeneous group of diseases of the myocardium associated with mechanical and/or electrical dysfunction that usually (but not invariably) exhibit inappropriate ventricular hypertrophy or dilatation and are due to a variety of causes that frequently are genetic. Cardiomyopathies either are confined to the heart or are part of generalised systemic disorders, often leading to cardiovascular death or progressive heart failure-related disability.'

Estimates of the prevalence of nonischaemic cardiomyopathy in the community or hospital setting range from 2 to 15%.In many cases a specific aetiology is not identified and treatment frequently includes management for systolic heart failure.

Cardiomyopathies can present at any age. The most common presenting complaint is symptoms of heart failure. A significant proportion of individuals are asymptomatic until they present as cases of sudden cardiac death. Screening is carried out in professional sportsmen and is recommended for competitive athletes.

In primary care, the most common cardiomyopathy encountered is hypertrophic cardiomyopathy, followed by nonischaemic dilated cardiomyopathy and arrhythmogenic right ventricular cardiomyopathy.

Hypertrophic cardiomyopathy is considered to be the most common cause of death during sporting activities, and has an annual cardiovascular mortality of approximately 1%. Most patients with hypertrophic cardiomyopathy are asymptomatic and are diagnosed incidentally, or when screening the family of sudden cardiac death cases. The most common symptoms are dyspnoea and chest pain. Chest pain can be exertional or related to the consumption of large meals and alcohol. Diagnosis is by two-dimensional echocardiography.

Dilated cardiomyopathy is characterised by dilatation and impaired systolic function of one or both ventricles, with normal coronary arteries. It can develop at any age and is more common in men and Afro-Caribbean patients. Sudden cardiac death resulting from malignant arrhythmias is the most common cause of death in dilated cardiomyopathy.

Arrythmogenic right ventricular cardiomyopathy most commonly presents with symptomatic ventricular arrhythmias, originating from the right ventricle, associated with dyspnoea, palpitations and presyncope/ syncope. These characteristically occur during exercise.

Cardiomyopathy should be suspected in patients with:
- Severe, recurrent and exertional chest pain
- Palpitations associated with dyspnoea, presyncope/syncope
- Exertional presyncope/syncope
- A family history of sudden cardiac death.