

Syncope in a 29 year old male

Case

29 year old male presented with syncope in the emergency department. During physical exertion (playing soccer) he suddenly fainted. After seconds of unconsciousness he recovered. The immediately called ambulance transferred the patient to the emergency department.

Physical exam:

29 year old male, Cardiac auscultation: systolic murmur. Remaining physical and neurological exam normal.

Lab tests:

Within normal range.

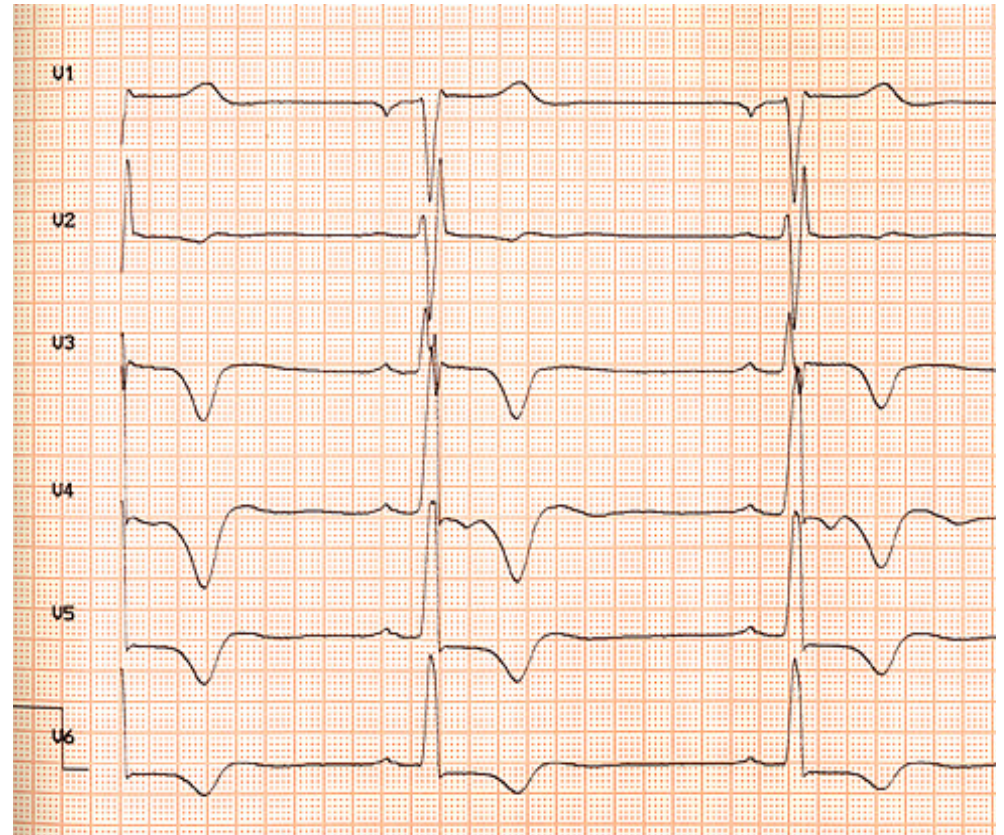
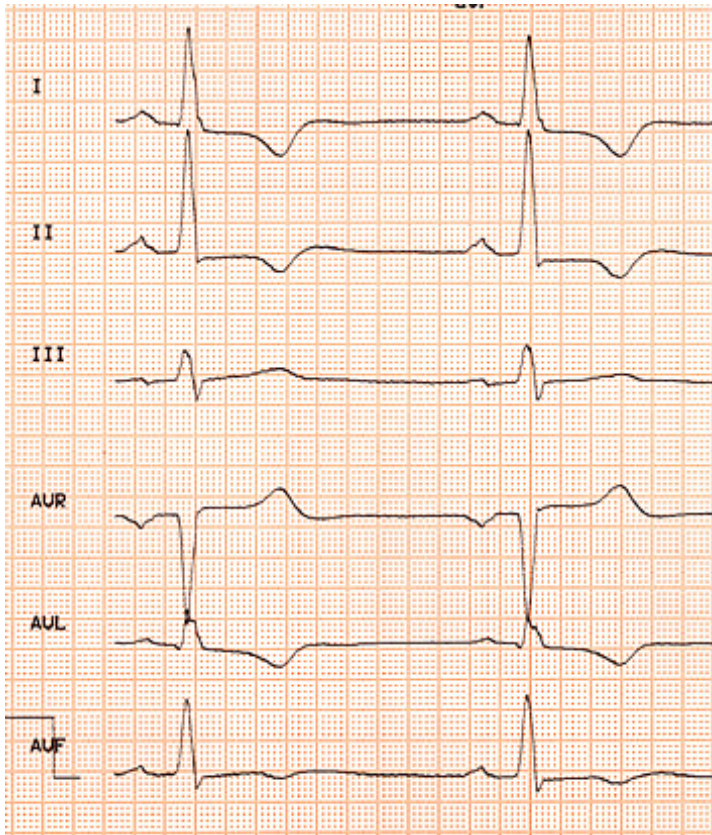
Medical history:

Previously healthy. No syncopes or dizziness. Occasionally palpitations. Appendectomy at the age of 21.

Family history:

Positive family history for sudden cardiac death (brother and uncle died at the age of 25 and 28, respectively)

ECG in the emergency department



CME Question

What is most likely the underlying diagnosis based on the ECG?

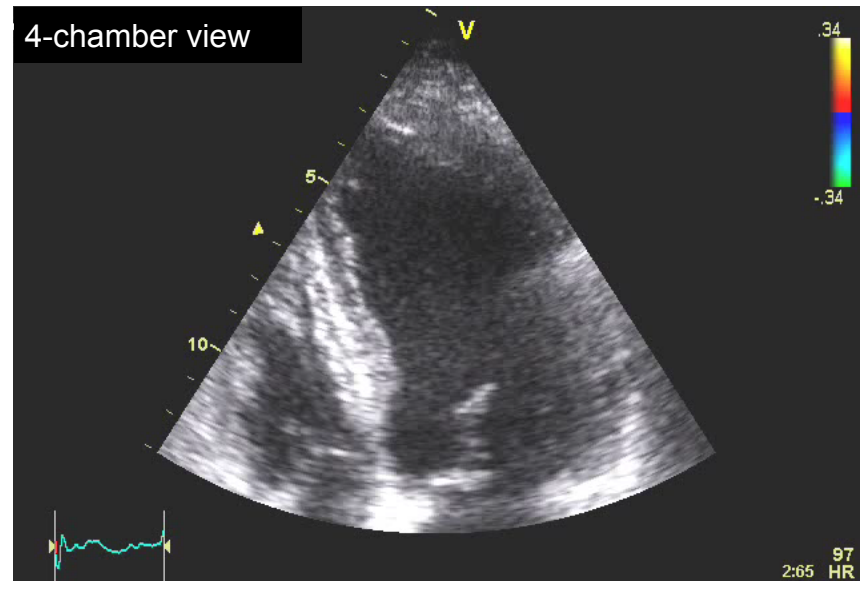
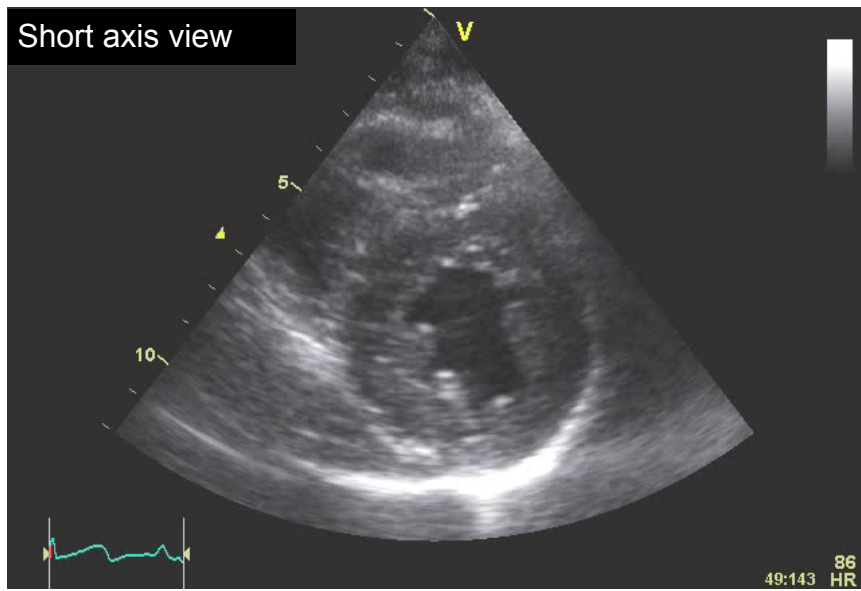
- a) Brugada syndrome
- b) Long QT syndrome
- c) Short QT syndrome
- d) Hypertrophic Cardiomyopathy

CME Question

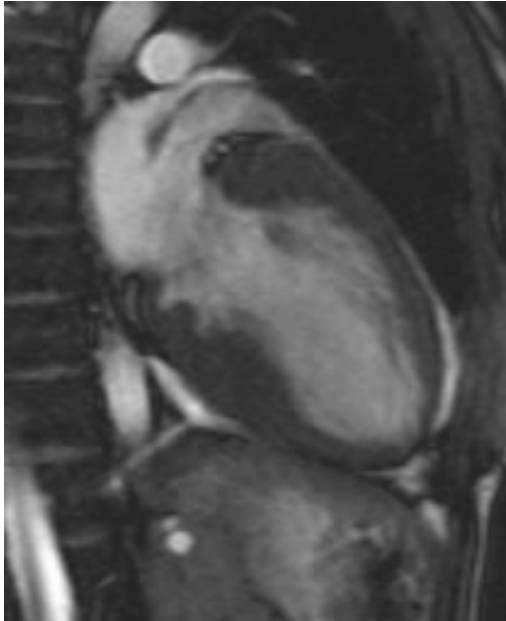
Which additional technical examination is not necessary/helpful to assure the diagnosis?

- a) Echocardiography
- b) Left heart catheterisation
- c) Programmed ventricular stimulation
- d) Cardiac MRI

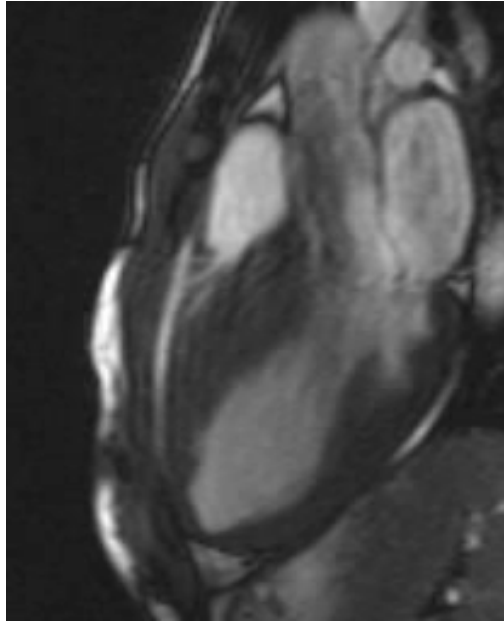
Echocardiogram in the emergency department



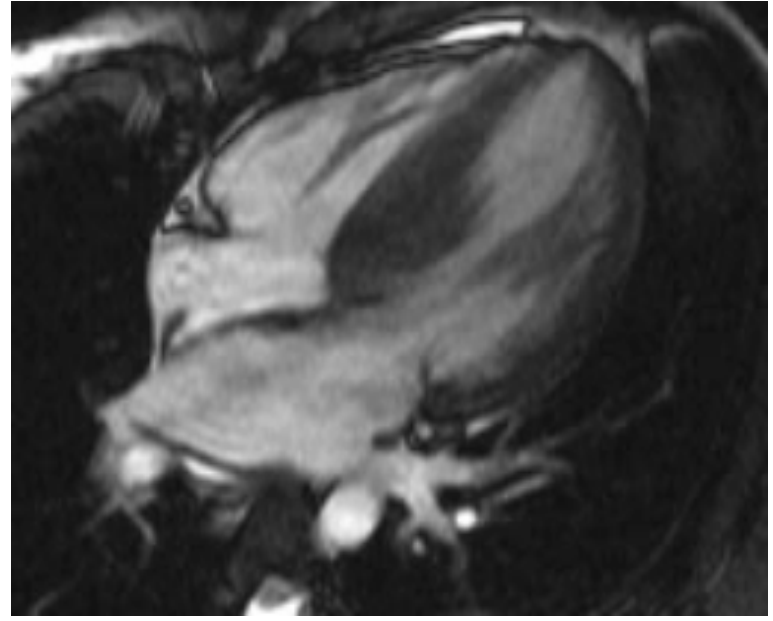
Cardiac MRI



2-Chamber View



3-Chamber View



4-Chamber View

CME Question

What of the following is not a major risk factor for SCD in Hypertrophic Cardiomyopathy?

- a) Family history of premature SCD
- b) Unexplained syncope
- c) Right ventricular involvement
- d) LV thickness greater than or equal to 30mm

CME Question

What of the following should not be considered in this special case:

- a) Genetic analysis of the patient
- b) Screening of the family members
- c) ICD-therapy
- d) Class I or III antiarrhythmic drugs as first line therapy