Abstract: 1350

Outcome after diagnosis with hypertrophic cardiomyopathy: a nationwide study

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Topic(s):
Hypertrophic Cardiomyopathy

Citation:

Background:

Patients with hypertrophic cardiomyopathy (HCM) are generally considered to have an increased morbidity and mortality due to symptomatic heart failure, atrial fibrillation, stroke and sudden cardiac death. Data reporting the mortality compared with background populations are however conflicting and primarily based on small cohorts from tertiary centers.

Purpose:

We aimed to investigate whether a nationwide cohort of patients with HCM had an increased risk of death compared with a matched cohort derived from the general Danish population.

Methods:

Using nationwide registries, we identified all patients with a first-time HCM diagnosis in Denmark between 2007 and 2016. Patients were matched 1:5 on age, sex and HCM diagnosis date to controls using risk set sampling. The study population was followed until death, emigration, or end of study period Jan. 1, 2017—whichever came first. Mortality was compared using Kaplan Meier plots and multivariable adjusted Cox proportional hazard analysis.

Results:

We identified 3010 patients diagnosed with HCM (53.8% male) per registry codes. Men were on average 8.5 years younger at diagnosis than women (62.6 years [p25-p75: 49.8 - 73.9] vs. 71.1 years [p25-p75: 59.7 - 80.6]). Patients with HCM had more comorbidities than matched controls. The median time of follow-up was 4.4 years (p25-p75: 2.3, 6.7). For HCM patients and matched controls, 1-year, 5-year and 10-year probabilities of death were 10% (95% CI 9-12%), 28% (95% CI 26-30%) and 47% (95% CI 42-51%) and 2% (95% CI 1-3%), 13% (95% CI 12-14%) and 24% (95% CI 23-25%) respectively (Figure 1). After adjusting for comorbidities and medications a diagnosis of HCM was associated to a 107% increased risk of death (hazard ratio 2.07 [95% confidence interval 1.60, 2.68], p<0.0001).

Conclusion:

In a Danish nationwide cohort, HCM was associated with a significantly higher risk of death compared with the background population. This study emphasizes the importance of continued, life-long follow-up of patients with HCM with the aim to anticipate and treat preventable adverse events. Furthermore, the findings stress the need to develop effective disease-modifying treatment strategies.
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