

Survival with valvular heart disease (OxValve-Survive)

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ABSTRACT

Introduction Valvular heart disease (VHD) occurs commonly in older patients (>65 years) but the majority is mild disease, which is of uncertain importance. Understanding the impact of VHD on mortality in this older group of patients would help determine its relevance and aid the appropriate use of healthcare resources. We determined survival in the OxValve cohort study to investigate whether people with VHD are at increased risk of death.

Methods OxValve is a cohort study in Oxfordshire, involving systematic screening of people aged 65 and over for VHD. Over 4,009 participants were recruited between August 2009 and May 2016 and screened using echocardiography to establish the presence and severity of VHD. The cohort was linked to Office for National Statistics mortality data to obtain date and cause of death. Cox regression was used to investigate the association of any VHD, VHD of significant severity, and VHD subtypes with all-cause and cause-specific mortality, adjusting for potential confounders including age, sex, socioeconomic status, smoking, and comorbidities.

Results Linked mortality data was available for 3,511 OxValve participants up to September 2018 (median 5.85 years follow-up). VHD was present in 2,645 (75.3%) participants and of these 288 (8.2%) had significant (moderate or severe) VHD. In total, 311 (8.9%) participants had died. Cancer was the commonest cause of death (n=135), followed by cardiovascular disease (n=75) and respiratory disease (n=35). After adjustment for age and other covariates, mild VHD was not associated with increased all-cause mortality (HR 1.16, 95%CI: 0.89 to 1.50). However, VHD of significant severity (moderate or severe disease) was associated with a nearly two-fold higher risk of death overall (HR 1.92, 95%CI: 1.38 to 2.67) including increased CVD mortality (HR 2.25, 95% CI: 1.21 to 4.18) – see figure.

Conclusion Mild VHD is very common, but is not associated with increased mortality. Significant (moderate-severe) VHD was however associated with a two-fold reduction in survival. Further research is required to understand the natural history of VHD, how to identify those with progressive disease and when to intervene.

Conflict of Interest None

