

Are comorbidities an issue in adults with congenital heart disease? An analysis of the German National Register for Congenital Heart Defects

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Objectives

Due to the great achievements in the field of congenital heart disease, the number of adults with congenital heart disease (ACHD) is increasing. As congenital heart disease patients are getting older, comorbidities are more frequently encountered. Therefore, the contribution of these comorbidities to patient outcome is gaining importance. An analysis of the prevalence of comorbidities from a contemporary nationwide cohort is lacking.

Methods

ACHD (defined as age >18 years) with a medical record within the last five years were identified from the German National Register for Congenital Heart Defects. We report data on patient demographics, underlying cardiac defect, disease complexity, associated conditions, and type of procedures.

Results

In total, 4054 patients (mean age 32.95 ± 11.86 years, female $n = 1948$ (48.1%)) were included. 1142 (28.2%) pat. had a simple defect, 1909 (47.1%) a defect of moderate complexity, and 886 (21.9%) a complex defect. In 117 pat. (2.9%) miscellaneous defects were present. At least one comorbidity was present in 2145 pat. (52.9%). 716 pat. (17.7%), had two or more comorbidities. Endocrinological (16.9%) and neurological disorders (16.2%) were the most common. Comorbidities affecting the musculoskeletal system were also frequently encountered (10.3%), as well as those affecting the gastrointestinal system (9.6%). 907 patients were older than 40 years (22.4%). At least one comorbidity was present in 67.3% of these patients compared to 48.8% of patients with an age between 18 and 40 years ($p < 0.0001$). At least two comorbidities were present in 47.0% of the patients older than 40 years compared to 25.0% in the younger age group ($p < 0.0001$).

Conclusions

Comorbidities were found in a significant proportion of ACHD. As our patients are getting older, this burden further increases. Future research should focus on the impact of these comorbidities on the outcome of ACHD patients.