Increasing incidence and mortality of infective endocarditis: a population-based study through a record-linkage system.

BMC Infect Dis. 2011 Feb 23;11(1):48.

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BACKGROUND: Few population-based studies provide epidemiological data on infective endocarditis (IE). Aim of the study is to analyze incidence and outcomes of IE in the Veneto Region (North-Eastern Italy).

METHODS: Residents with a first hospitalization for IE in 2000-2008 were extracted from discharge data and linked to mortality records to estimate 365-days survival. Etiology was retrieved in subsets of this cohort by discharge codes and by linkage to a microbiological database. Risk factors for mortality were assessed through logistic regression.

RESULTS: 1,863 subjects were hospitalized for IE, with a corresponding crude rate of 4.4 per 100,000 person-years, increasing from 4.1 in 2000-2002 to 4.9 in 2006-2008 (p=0.003). Median age was 68 years; 39% of subjects were hospitalized in the three preceding months. 23% of patients underwent a cardiac valve procedure in the index admission or in the following year. Inhospital mortality was 14% (19% including hospital transfers); 90-days and 365-days mortality rose through the study years. Mortality increased with age and the Charlson comorbidity index, in subjects with previous hospitalizations for heart failure, and (in the subcohort with microbiological data) in IE due to Staphylococci (40% of IE).

CONCLUSIONS: The study demonstrates an increasing incidence and mortality for IE over the last decade. Analyses of electronic archives provide a region-wide picture of IE, overcoming referral biases affecting single clinic or multicentric studies, and therefore represent a first fundamental step to detect critical issues related to IE.

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