Infective Endocarditis in paediatric and congenital heart disease patients: thirty years experience in a single centre.

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Introduction: Infective Endocarditis (IE) is a serious complication in both operated and unoperated patients with congenital heart disease (CHD). In 2008, new guidelines were introduced in the UK, contraindicating the use routine antibiotic prophylaxis for potentially bacteraemic procedures in patients with CHD. The current study explores our experience of IE in paediatric and CHD patients in a single centre, and analyses this experience in relation to prophylaxis guidelines.

Methods: Patients with CHD and children with structurally normal hearts, diagnosed with IE from January 1985 to February 2013 were identified from our database and their case records reviewed. The incidences of IE before and after 2008 were compared. Groups were analysed using descriptive statistics (frequencies, crosstabs) and chi square test where applicable.

Results: Sixty cases with IE were identified; 54 with CHD (36 adults, 18 children) and 6 children with normal hearts. At the time of IE diagnosis, 27 (50%) patients (17 adults and 10 children with CHD) had previously undergone corrective or palliative cardiac surgery. Thirty three patients (55%) (18 adults and 10 children with CHD) and 5 children with normal hearts had undergone a previous documented invasive, non-cardiac procedure one to twenty weeks before the diagnosis of IE. Forty two (70%) cases (27 adults and 13 children with CHD and 2 children with normal hearts) underwent surgery for IE. Six patients (14%) (4 adults and 2 children, that had surgery for IE) presented with IE relapse, 1(17%) of the patients within the first year after the operation. Two (4.7%) adults that had undergone IE surgery died following prolonged hospitalisation.

The frequency of IE did not differ in patients with CHD that had a non cardiac invasive procedure documented before IE diagnosis compared to those who did not (33.3% vs 58.9%, p=0.131, respectively) before and after the implementation of new national guidelines.

Conclusions: Infective endocarditis is a significant burden in patients with congenital heart disease, carrying important morbidity and mortality. Changes in antibiotic prophylaxis regime did not result in increased incidence of SBE.