



ANTIBIOTICOTERAPIA NEI BAMBINI

INFECTIVE ENDOCARDITIS: A DECADE OF EXPERIENCE AT A TERTIARY PAEDIATRIC CARE CENTRE

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Background: Although relatively rare in children, infective endocarditis (IE) has an increased incidence in patients with congenital heart disease (CHD).

Methods: From 2013 to October 2024, we retrospectively reviewed all patients diagnosed with IE, both native valve (NVE) and prosthetic valve endocarditis (PVE), according with modified Duke criteria admitted to our pediatric and congenital heart surgery center.

Results: 95 patients with a diagnosis of infective endocarditis (IE) were collected over a decade, of these, 64 patients reached a definitive diagnosis according to the Duke criteria. 30 patients had a NVE while 65 were diagnosed with PVE (47.7% RV-PA conduit). Among the risk factors, the presence of pre-existing heart disease was the most significant factor: 84 patients (88.4%) had CHD, and 2 had acquired heart disease. Following this, the presence of prosthetic cardiac material (69.4%), central venous catheters (18.9%), and implantable devices (8.4%) were notable. In 81% of cases, a microbiological isolate was found with oral streptococci being the most frequently isolated pathogens. The comparison of isolates between NVE and PVE is shown in Fig. 1. Coagulase-negative staphylococcus (CoNS) infections were significantly more frequent in PVE patients ($p=0.01$). Transthoracic and transesophageal echocardiogram (TTE and TEE) showed positive findings in 72 patients. The rate of positive findings was higher in NVE than PVE ($p=0.007$). Among the 23 patients with negative TTE/TEE, fluorodeoxyglucose positron emission tomography (FDG-PET) and radiolabeled leukocyte scintigraphy identified IE in 10 patients, while computed tomography (CT) evidenced IE in 5 patients. In 7 patients, imaging results were not conclusive. The average duration of antibiotic therapy was 33.5 days for NVE and 36 days for PVE. 61 patients had a clinical course with complications; of these, 50% developed heart failure and 50% experienced thromboembolism. 5 patients died from infective endocarditis.

Conclusions: Although rare, infectious endocarditis is a difficult condition to diagnose and with high complication rate, a multidisciplinary team is needed for its management.