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**Infective Endocarditis in young population in a 15-year period in a tertiary hospital**

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Objectives: To determine the epidemiological, clinical,microbiological characteristics and outcome of infective endocarditis (IE), in patients less than 25 years during a 15-year period in our Spanish tertiary hospital and its relationship to congenital heart disease (CHD).

Methods: Descriptive retrospective study by chart review of patients from 0-25 years who met modified Duke criteria for IE and were admitted to our hospital from January 2000-September 2015. Risk factors (underlying diseases, presence of prosthetic heart materials, central catheters, previous dental procedures, teeth infections, cutaneous wounds, cardiac interventions within 8 weeks), clinical features, diagnostic imaging, microbiological and laboratory findings, management and outcome were reviewed.

Results: 31 patients with a total of 34 episodes of IE were identified (76% males). The mean age was 13.8 years SD 6.7 (range: 0.3-25). 30 patients (88.2 %) had underlying heart disease of which 23 (76.6%) had prosthetic heart materials. Only 3 (8.8%) were previously healthy and 1 (3%) was a sever burn. The main presenting symptom was fever with a median duration before admission of 13 days (IQR 4-60). Two presented with septic shock. Viridans streptococci was the most common isolated organism (12), followed by S. aureus (3) accounting both for 43% of total. Three were fungal IE (2 Candida, 1 Aspergillus). In all cases, vegetations were documented via echocardiography (in 23.52 % transesophageal echo was required). In half the cases (50%) lesions were localized on prostethic material (70.5% conduits; 17.7% pacemaker leads, 11.8% valves) whereas tricuspid was the most affected valve among native IE (35.3%). The median duration of antibiotherapy was 42 days ( IQR 28-126). Acute heart surgical procedures were necessary in 16 cases (47%) all due to hemodynamic impairment secondary to valvular dysfunction or conduit obstruction. In 7 cases, prosthetic valves were placed ( including the 3 previously healthy). Systemic complications occurred in 13 patients (septic emboli and shock). Mortality related to endocarditis occurred only in one case.

Conclusions: IE in paediatric population occurs mostly in patients with CHD specially if prosthetic materials present . Mortality seems to have decreased. Multidisciplinary teams are the basis for success in its management.

| CONGENITAL HEART DISEASE | Number of episodes | CONGENITAL HEART DISEASE | Number of episodes |
|---|---|---|---|
| Aortic /subaortic disease | 2 | Mitral valve dysplasia | 1 |
| Atrial septal defect | 1 | Pulmonary atresia with ventricular septal defect | 4 |
| Coarctation of Aorta | 1 | Pulmonary valve stenosis | 1 |
| Complete TGA | 2 | Tetralogy of Fallot | 9 |
| Congenitally corrected TGA | 1 | Ventricular septal defect | 4 |
| Double outlet right ventricle | 3 | Other | 1 |
| * 3 patients with IE associated to pacemaker leads(1 Congenital complete heart block 2 Complete heart block secondary to post heart surgery: 1 Fallot, 1 Ventricular septal defect) | | | |