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Early postoperative cardiac catheterization in children: a single center retrospective survey over 5 years

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Background:

Cardiac catheterization is a main tool in complicated postoperative course as a diagnostic or as a therapeutic modality. We report a retrospective single center series.

Material and methods:

Between August 2013 and August 2018 all patients with postoperative cardiac catheterization within 30 days after surgery were included. Demographic, type of surgery, Aristotle score, reason for cardiac catheterization (group 1: treatment of postoperative lesions; group 2: treatment of associated abnormalities; group 3/ diagnostic procedure) were collected. Type of intervention, procedural complication, in hospital mortality were recorded.

Results:

164 patients were included. Median time between surgery and catheterization was 1 day. 36,5% were neonates. 24,3% were on ECMO. Mean age and weight were 16 months and 7,6 kg. Average of Aristotle surgical score was 9,5 and complexity level of cardiac catheterization was 3. Reason for catheterization were group 1: N=36, group 2 N=56 and group 3 : N=72. 73 diagnostic procedures and 104 endovascular interventions in 91 patients were performed (17 atrioseptostomies, 13 balloon dilatations, 47 embolisations, 25 stent implantations; 1 vsd closure and 1 valvuloplasty). The precatheterization diagnostic was modified in 16,5% of patients (N=27/164). There were 4 post procedural surgeries: 3 because of modified diagnosis and 1 for procedural complications. 7,9% of complications and no per procedural death were observed. Mortality before discharge was 13,41% .

Conclusions:

Early cardiac catheterization is mandatory for patients with complicated course after complex cardiac surgery. Change of diagnosis is not rare, endovascular treatment can be performed with low complications even in high risk patients.