Inferior mini-sternotomy provides excellent cosmetic outcomes in children with congenital heart disease.

Complexo Hospitalario Universitario A Coruña. Spain.

Introduction and objectives: Minimally invasive surgery (MIS) has been previously reported to improve cosmetic outcomes in children with congenital heart disease (CHD). However, the scar has been rarely objectively assessed. We report evaluation of cosmetic outcomes in children with CHD undergoing cardiac surgery through inferior mini-sternotomy.

Methods: From January through December 2010, we operated on 15 children (female=8) with septal defects –ASD (n=13), partial AV canal (n=1) and VSD (n=1)– through inferior mini-sternotomy. Mean age at surgery was 60 months (range from 8 to 151 months). Follow-up data collection was carried out and validated by two different observers at least 6 months after surgery. Objective and subjective evaluation of the cosmetic results were performed with The Vancouver Scar Scale and The Patient Scar Assessment Scale (PSAS), respectively.

Results: All patients underwent surgery with no early or late complications. Two patients were lost to follow-up. For a mean follow-up was 17 months (range from 8 to 24 months), the mean dimensions of the scar was 6.7 ± 1.9 cm. The objective score in the Vancouver were ≤ 2 in 11 cases (near the normal skin). With respect to PSAS evaluation, parents qualified cosmetic outcomes as 8/10 (being 10, maximum satisfaction possible).

Conclusions: MIS through inferior mini-sternotomy provides excellent cosmetic outcomes in children with CHD. This approach could be considered of choice in children with septal defects.