

NUSS PROCEDURE FOR PECTUS EXCAVATUM

Thoracic surgery has also benefited from the advances in MIS. Repair of pectus excavatum deformity has received much attention lately with the popularity of the Nuss technique. Traditional operations performed since the 1950s usually employ a long transverse thoracic incision, resection of the deformed cartilage, sternal osteotomy and various forms of internal fixation, which usually depended on a sternal bar. This standard procedure takes several hours, generates significant blood loss and results in a stiff, poorly compliant chest contributing to thoracic chondrodystrophy when applied to younger patients. Failure rates up to 36 percent were reported.

Minimally invasive techniques exploit the pliability and remodeling capacity of the pediatric thorax. This thoroscopically-guided procedure involves using one small incision on each side of the chest, passing a precurved steel bar underneath the sternum at the level of maximal deformity and immediately correcting it. The bar is generally left in place for two years to Nuss procedure have been very good with over 10 years of follow-up: a 10 percent recurrence rate, minimal blood loss and normal chest compliance. Modifications of the technique have reduced the incidence of bar displacement to less than 6 percent.