Research Days

Long-term recurrence rates and patient satisfaction after repair of pectus excavatum

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Long-term recurrence rates and patient satisfaction after repair of pectus excavatum

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IRB Number: 1802

Describe role of Submitting/Presenting Trainee in this project (limit 150 words):

Lead research fellow in the project, data collection, data analysis, writing, and editing.

Background, Objectives/Goal, Methods/Design, Results, Conclusions limited to 500 words

Background:

The Nuss procedure is a minimally invasive approach to repairing pectus excavatum deformities.

Objectives/Goal:

We aimed to evaluate long-term outcomes and overall patient satisfaction after surgical correction.

Methods/Design:

Patients who underwent pectus excavatum repair and subsequent bar removal at a single tertiary care center from January 2000 to December 2020 were identified. A retrospective chart review was performed, and a telephone survey was conducted to evaluate perceived recurrence, need for surgeon re-evaluation, surgical re-intervention, and overall satisfaction. Data are presented as medians with interquartile ranges (IQR) and frequencies with percentages.

Results:

A total of 583 patients were included. The survey response rate was 26.2% (n=153). The respondents were predominantly male (80.4%, n=123) with a median age at surgical correction of 14.9 years (IQR 12.9,16.1)
and a median Haller index of 3.8 (IQR 3.4, 4.5). The median time to bar removal was 2.9 years (IQR 2.5, 3.0) with a median age at removal of 17.7 years (IQR 15.5, 19.0). The median time from surgery to survey follow-up was 9.6 years (IQR 5.0, 11.4) with respondents having a median age at follow-up of 25 years (IQR 22.0, 28.4). The overall satisfaction rate was 96.7% (n=148) with a re-intervention rate of 2.0% (n=3). The perceived recurrence rate was 30.7% (n=47) with 12.8% (n=6) of those requesting surgical re-evaluation.

**Conclusions:**

There is a high level of satisfaction many years after correction of pectus excavatum and bar removal. Re-intervention rate is low despite some patients reporting a perceived chest wall deformity recurrence.