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Bar Removal Following Minimally Invasive Pectus Excavatum Repair – Does Removal at 2 Years Affect Recurrence or Satisfaction Rates?

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Bar Removal Following Minimally Invasive Pectus Excavatum Repair – Does Removal at 2 Years Affect Recurrence or Satisfaction Rates?

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Introduction

- Pectus excavatum is the most common congenital chest wall deformity.
- During minimally invasive pectus excavatum repair (MIRPE), a bar is placed to correct the deformity.
- The bar normally stay in place for 3 years.
- Little is known about recurrence or cosmetic satisfaction when the bar is removed early.

Aim

- Review patients who underwent bar removal less than 3 years after placement:
 - Recurrence Rate
 - Patient Satisfaction

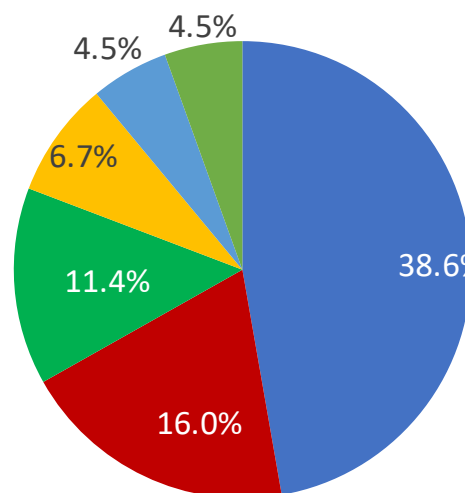
Methods

- Retrospective Review with Prospective Follow-up
- Inclusion Criteria:
 - MIRPE between October 2006 – June 2017
 - Had bar removed < 3 years after placement
- Telephone Follow-up
 - Residual Deformity
 - Cosmetic Satisfaction

Results

44 patients included
 Haller Index: 4.0 (IQR 3.5, 4.5)
 Median time at bar placement: 13.3 years
 Median time to bar removal: 2.1 years

Reasons for Early Bar Removal



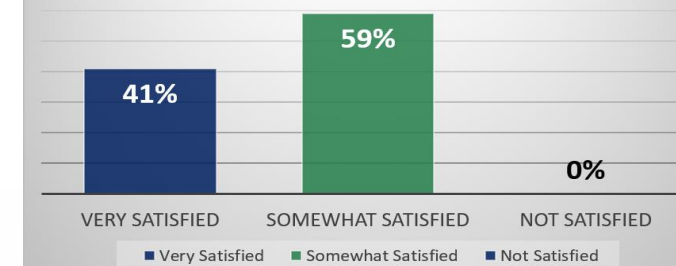
- No Reason Identified/Doing Well
- Over-correction
- Leaving Parents' Home
- Other
- Infection
- Loss of Insurance

Post-operative Outcomes	Patients (n=44)
Recurrent Deformity	2
- Required Bracing	1
- Required Redo Repair	1
Bracing for Pectus Carinatum	1
Costal Cartilage Resection	3
Scar Revision	1

Telephone Surveys (n=17):

- *Median follow-up: 9 years
- *9 patients (53%) noted residual deformity
 - *2 thought deformity was >25% of chest
 - *1 sought re-evaluation (bracing)

Patient Satisfaction Rates



Conclusion

- Early bar removal does not increase recurrence rates requiring surgical intervention and maintains good patient cosmetic satisfaction.
 - More long-term follow-up information for all pectus patients is warranted.