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Minimal Invasive Rheumatic Mitral Valve Repair: A Single Center Experience

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Mitral repair

Is **comparable or superior** to replacement in rheumatic mitral valve disease

Death Rate

Replacement > Repair

Reoperation Rate

Replacement $\geq$ Repair

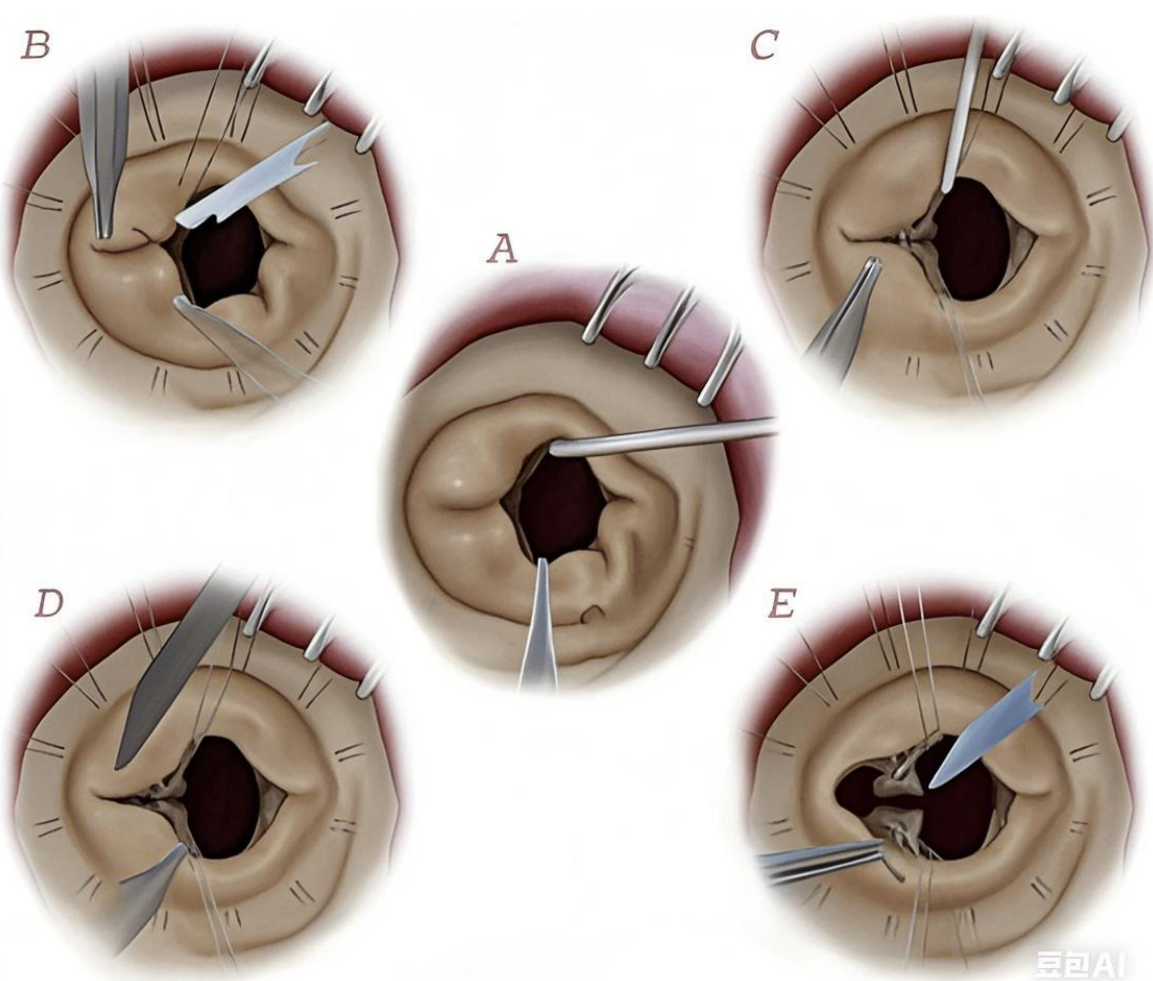
Valve-Related Event Rate

Replacement > Repair

“Respect rather than Resect” in Rheumatic Mitral Valve Disease

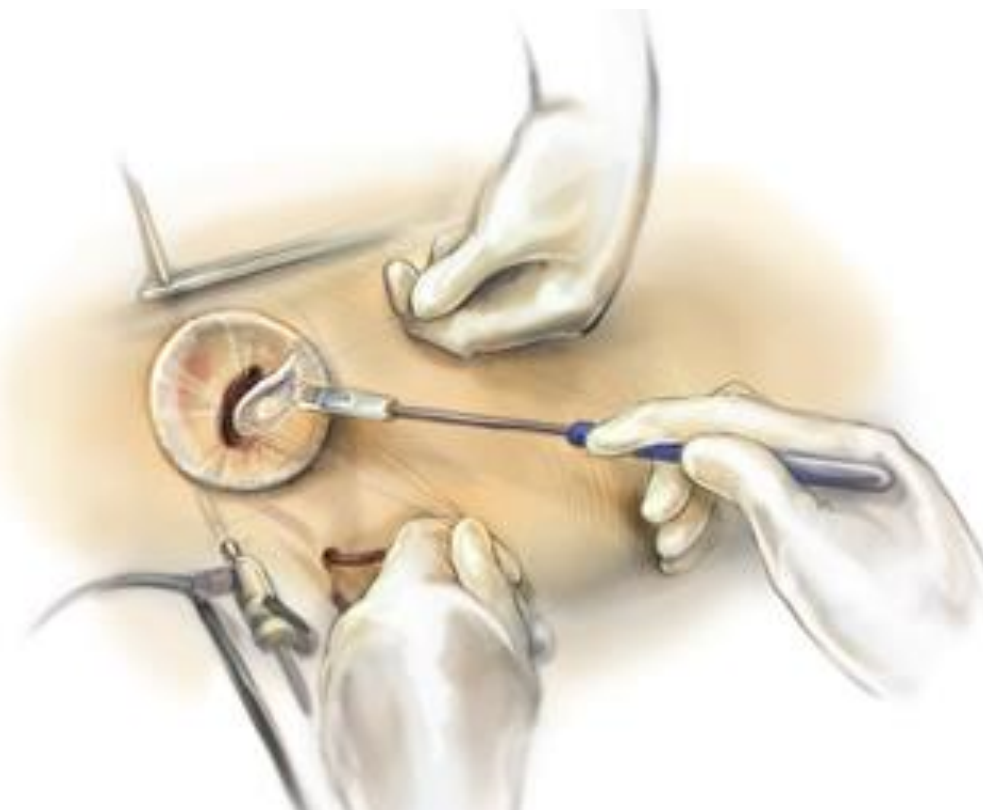
- Kim et al. Heart, 2018
- Fu JT et al. J Thorac Cardiovasc Surg, 2021

“SCORE” procedure

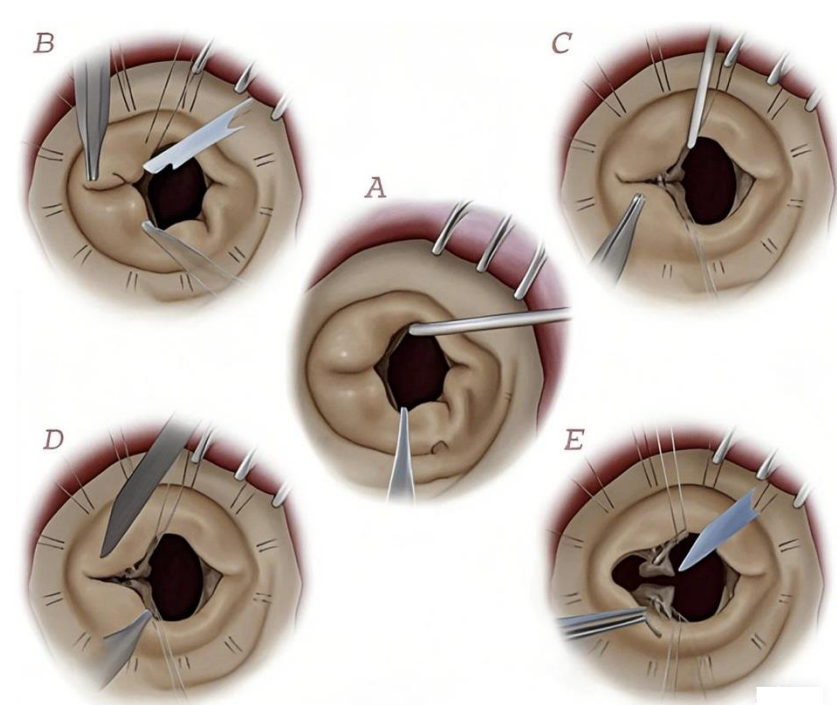
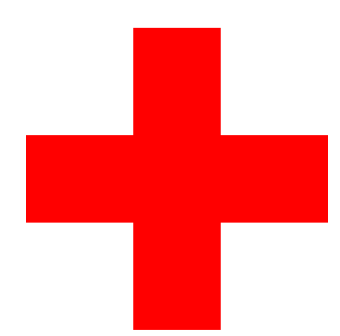


- S: **S**having
- C: **C**hecking
- O: Commissuro**t**omy
- Re: **R**elaxing

Luo T et al. Asian Cardiovas Thorac Ann, 2020



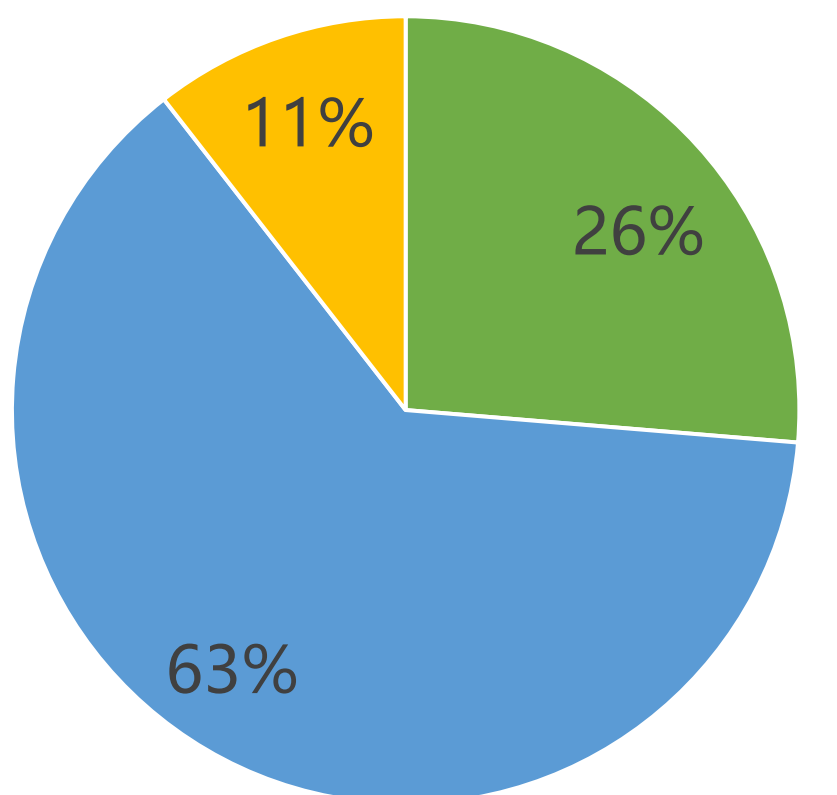
Minimally Invasive



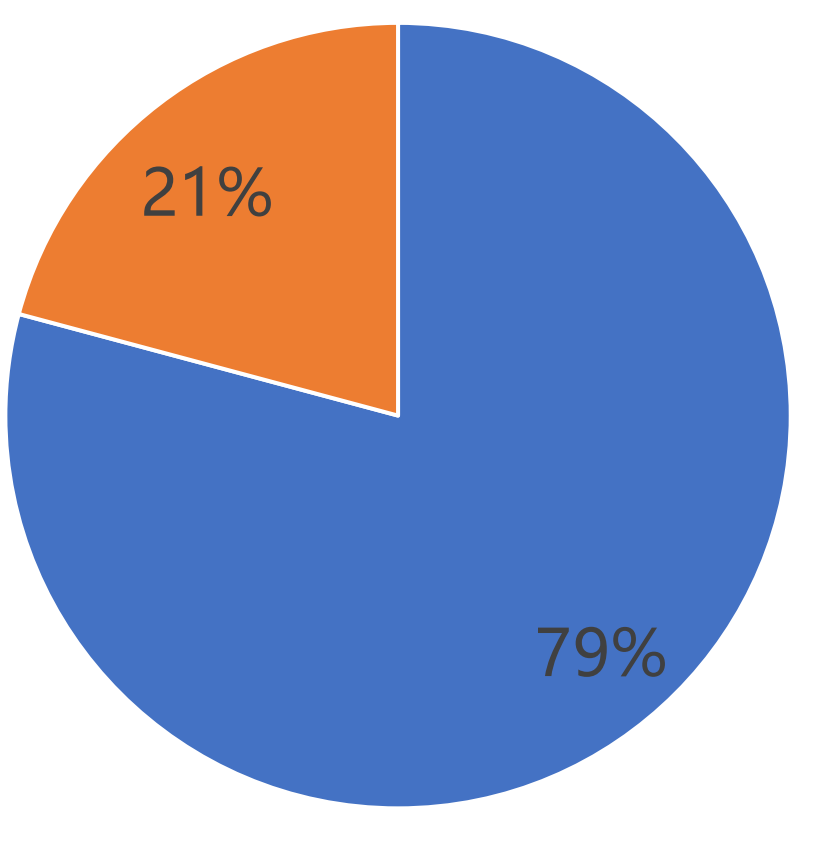
“SCORE” procedure



Classification
Rheumatic Mitral Valve
(N=48)



■ Type I ■ Type II ■ Type III

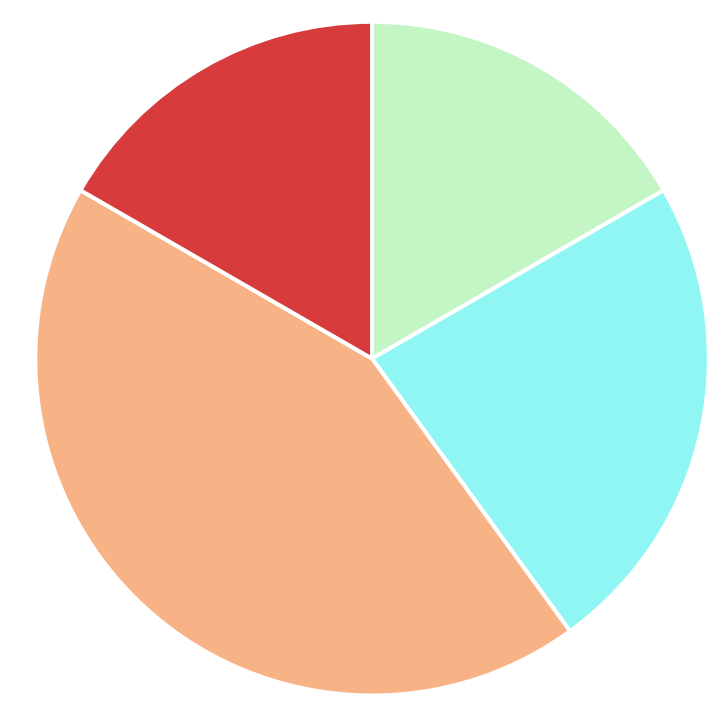


■ Minimally Invasive

Baseline Characteristics

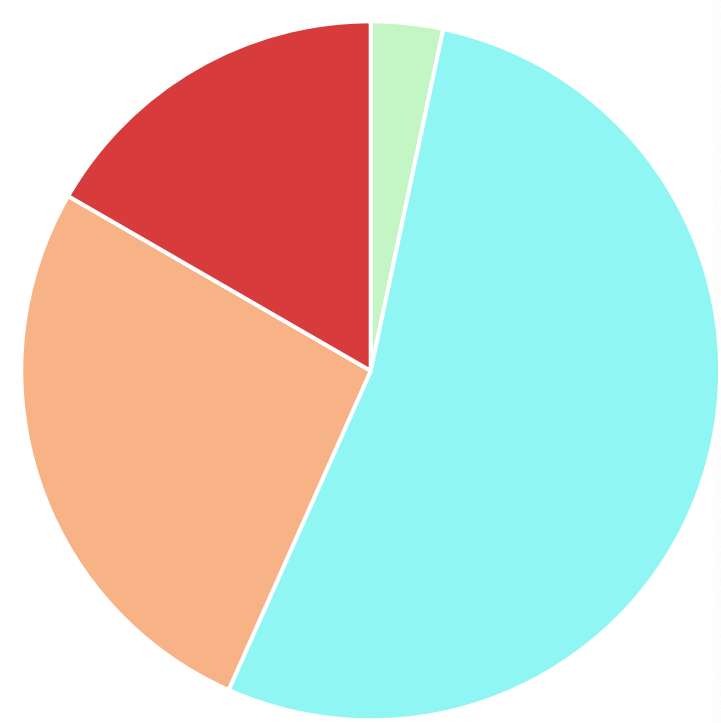
Characteristic	N=48
Gender: Female	40 (83.3%)
Age	52.00±10.10
AF	25 (52.1%)
Preop TTE	
LA/mm	48.35±70.57
LVDd/mm	48.34±6.93
LVDs/mm	30.93±5.79
LVEF/%	64.81±7.38
MVOA/m2	1.58±0.56
Mean Gradient/mmHg	7.69±4.26
PASP/mmHg	42.25±13.46
MS	
None or Trivial	5(10.4%)
Mild	17(35.4%)
Moderate	20(41.7%)
Severe	6(12.5%)
MR	
None or Trivial	4(8.3%)
Mild	20(41.7%)
Moderate	14(29.2%)
Severe	10(20.8%)
Operation Time/min	221.90±44.64
AF	25 (52.1%)
AF ablation	20
Monopolar	15
Bipolar	5
LAA	
Resection	4
Direct Closure	10
Pericardial Closure	10

MS Before Surgery

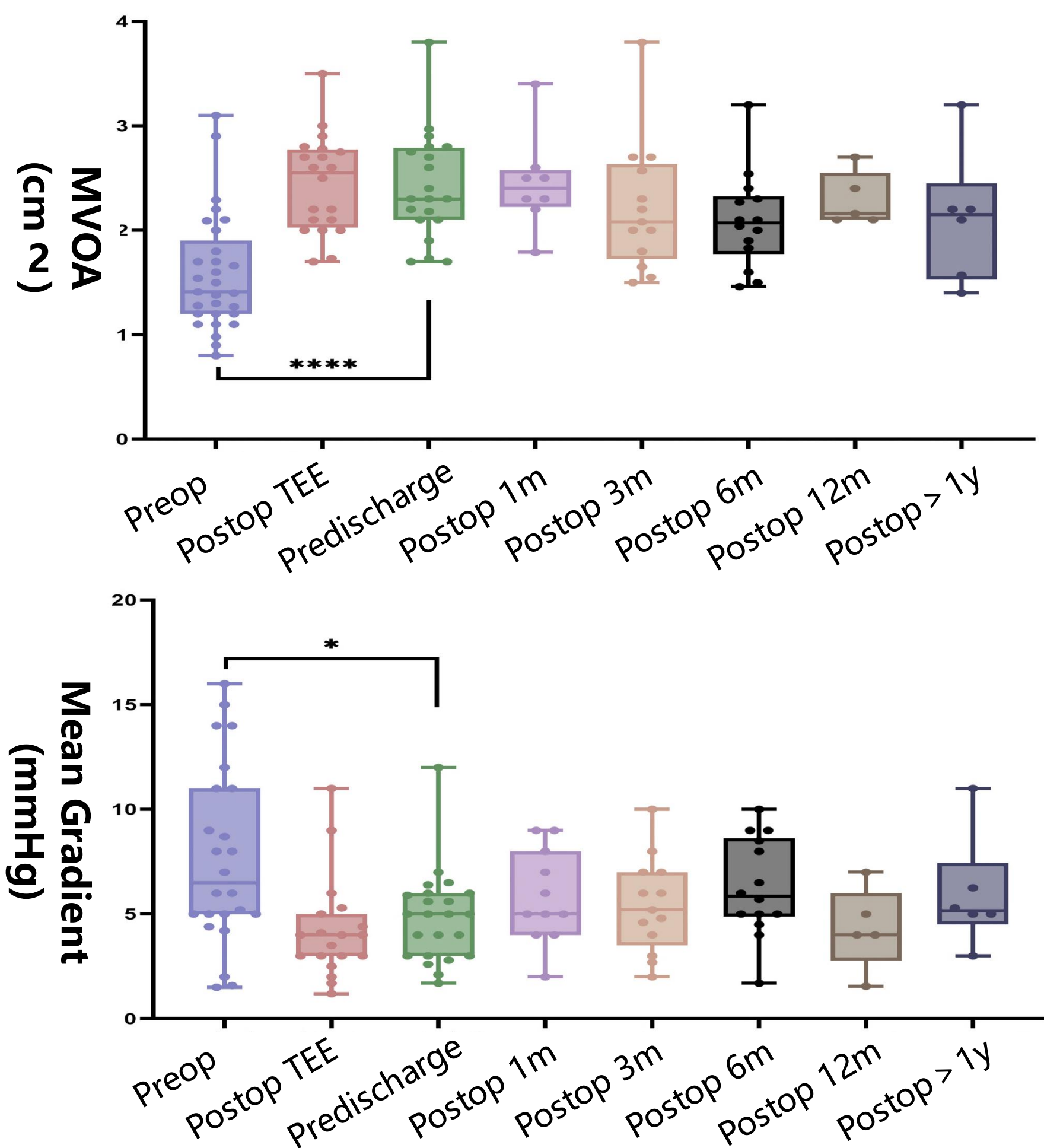


■ None or Trivial ■ Mild
■ Moderate ■ Severe

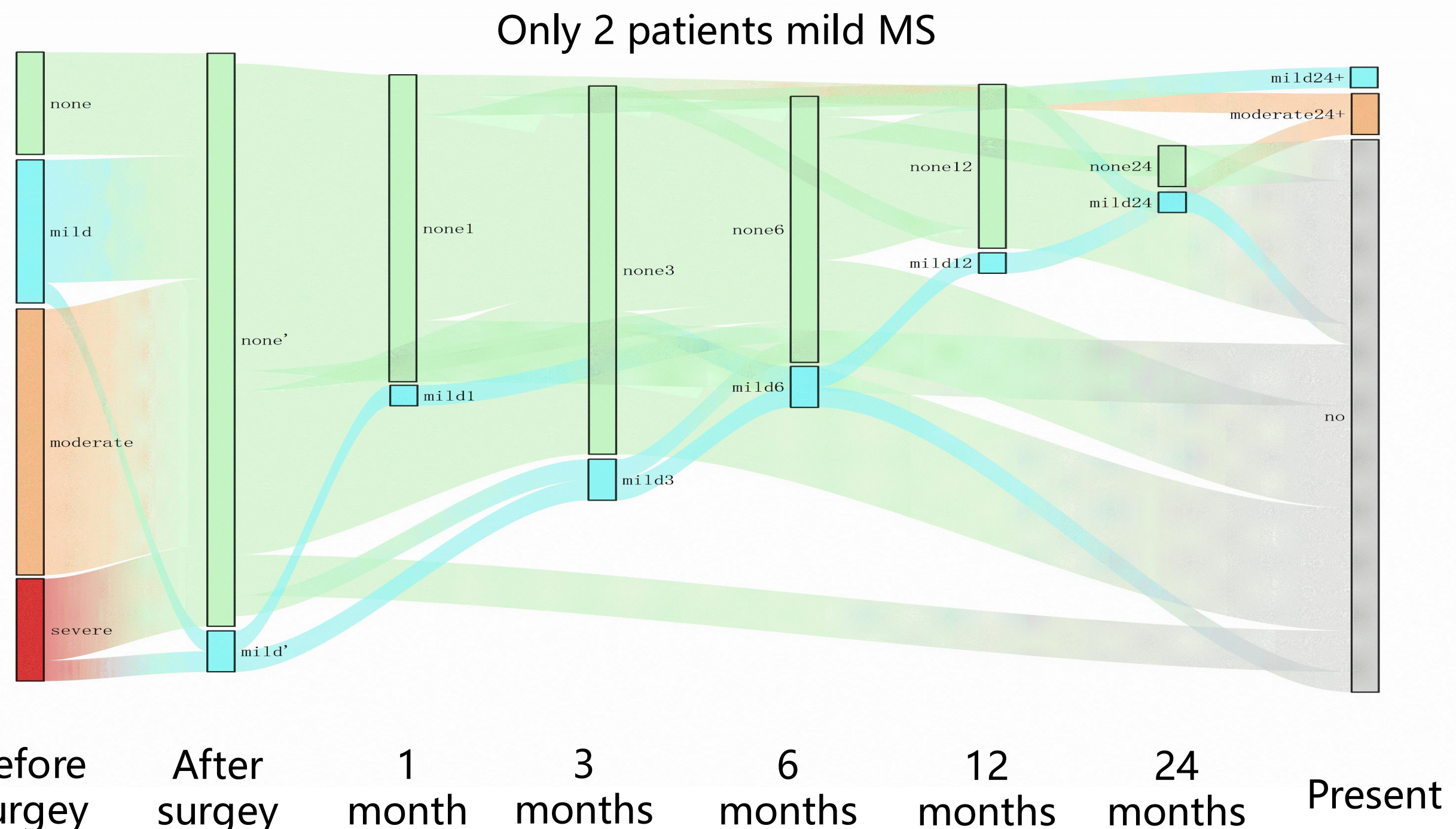
MR Before Surgery



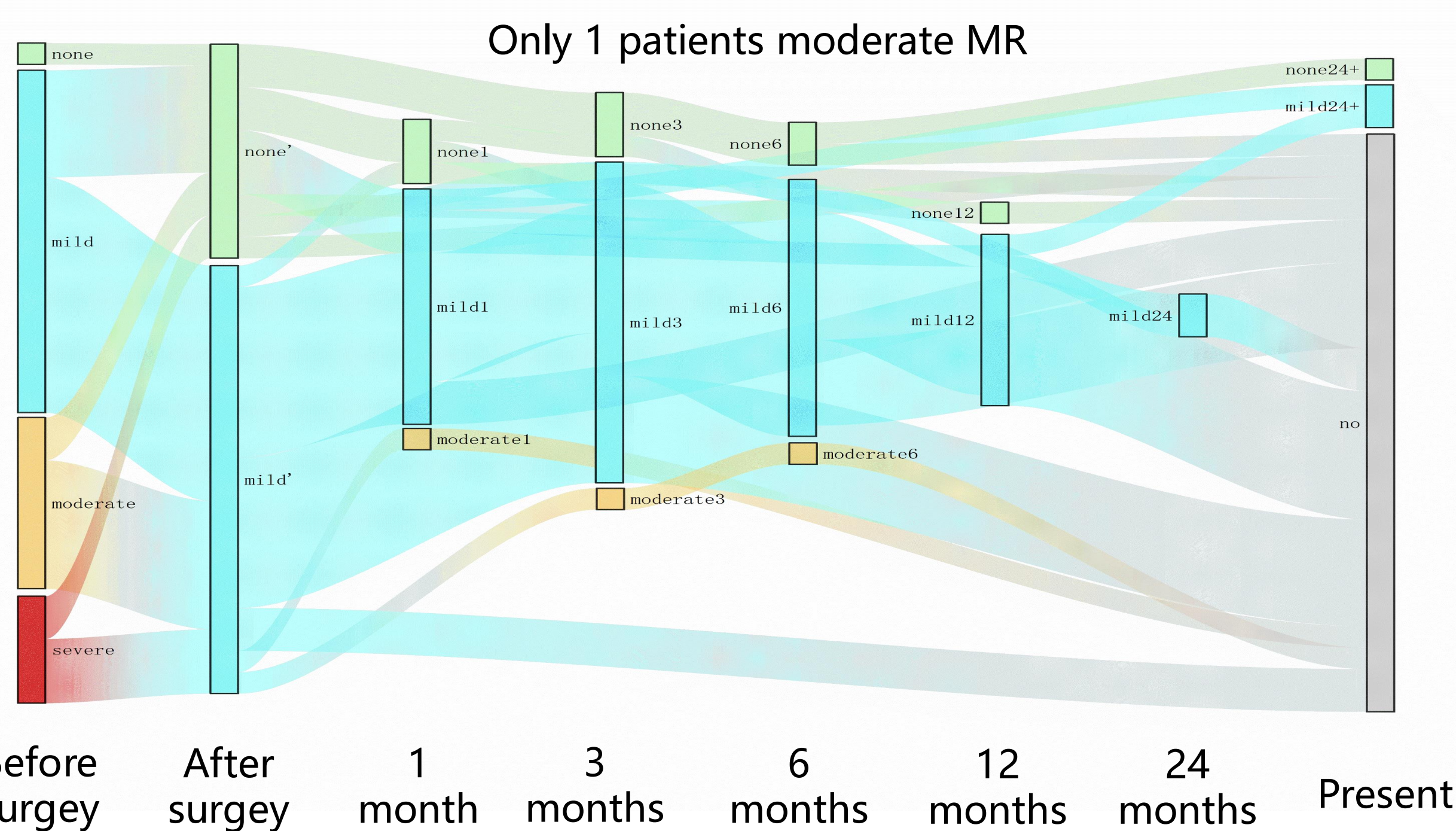
■ None or Trivial ■ Mild
■ Moderate ■ Severe



Mitral Stenosis Grades



Mitral Regurgitation Grades



Conclusions: Minimally invasive rheumatic mitral valve repair through a small right thoracotomy incision can make a better vision of the subvalvular structure, **with good surgical results and safety of the surgery**, which can be a **good choice for suitable patients** with rheumatic mitral valve malfunction, especially middle-aged and elderly patients.