



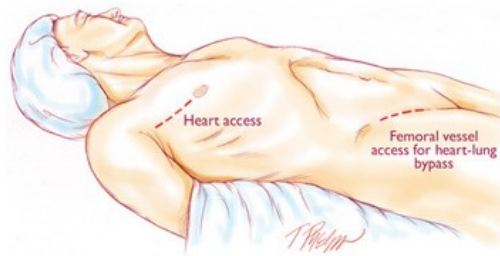
# Simplified Right Anterior Mini-Thoracotomy Approach for Atrial Septal Defect Closure without special Instruments

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# Introduction

ASD closure via mini-thoracotomy (MICS)



→ Proven to be safe

→ Excellent cosmetics

# Why not?

- Equipment Issues



- Technical Difficulty



# Right anterior mini-thoracotomy approach

**(3<sup>rd</sup> ICS, 5cm length)**

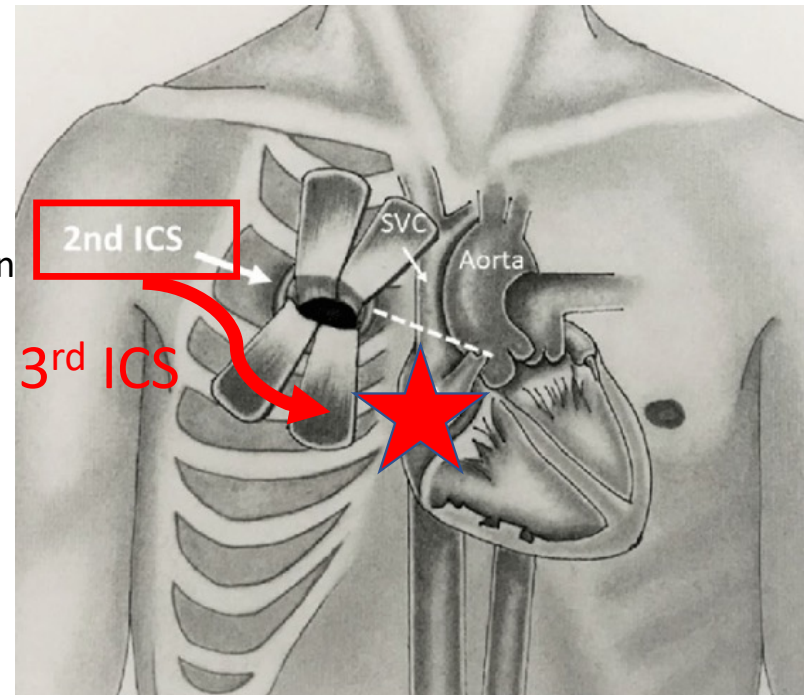
Peripheral cannulation

- Femoral artery, vein and internal jugular vein cannulation

**Fibrillatory arrest**

- Using temporary pacer on right ventricle  
→ No need for aortic crossclamp

Right atriotomy







# Surgical Outcome

11 cases

CPB time:  $42.7 \pm 10.6$  min

Fibrillation time:  $28.8 \pm 10.8$  min

No remnant shunt

No morbidity/mortality





## Advantages of fibrillating arrest

- No need of minimally invasive aortic clamp
- Root cannulation is not required
- Less concerns regarding air embolism

## Advantages of RAT approach

- Direct view of ASD margins
- No need for knot pusher





# Conclusion

- No need for special instruments (thoracoscope, thoracotomy retractor, Glauber clamp)
- Feasible for centers starting MICS
- Cost-effective

