



Surgical Outcomes of Sternotomy Versus Minimally Invasive Mitral Valve Surgery in Intermediate and High-Risk Cohorts: A Propensity Matched Comparison



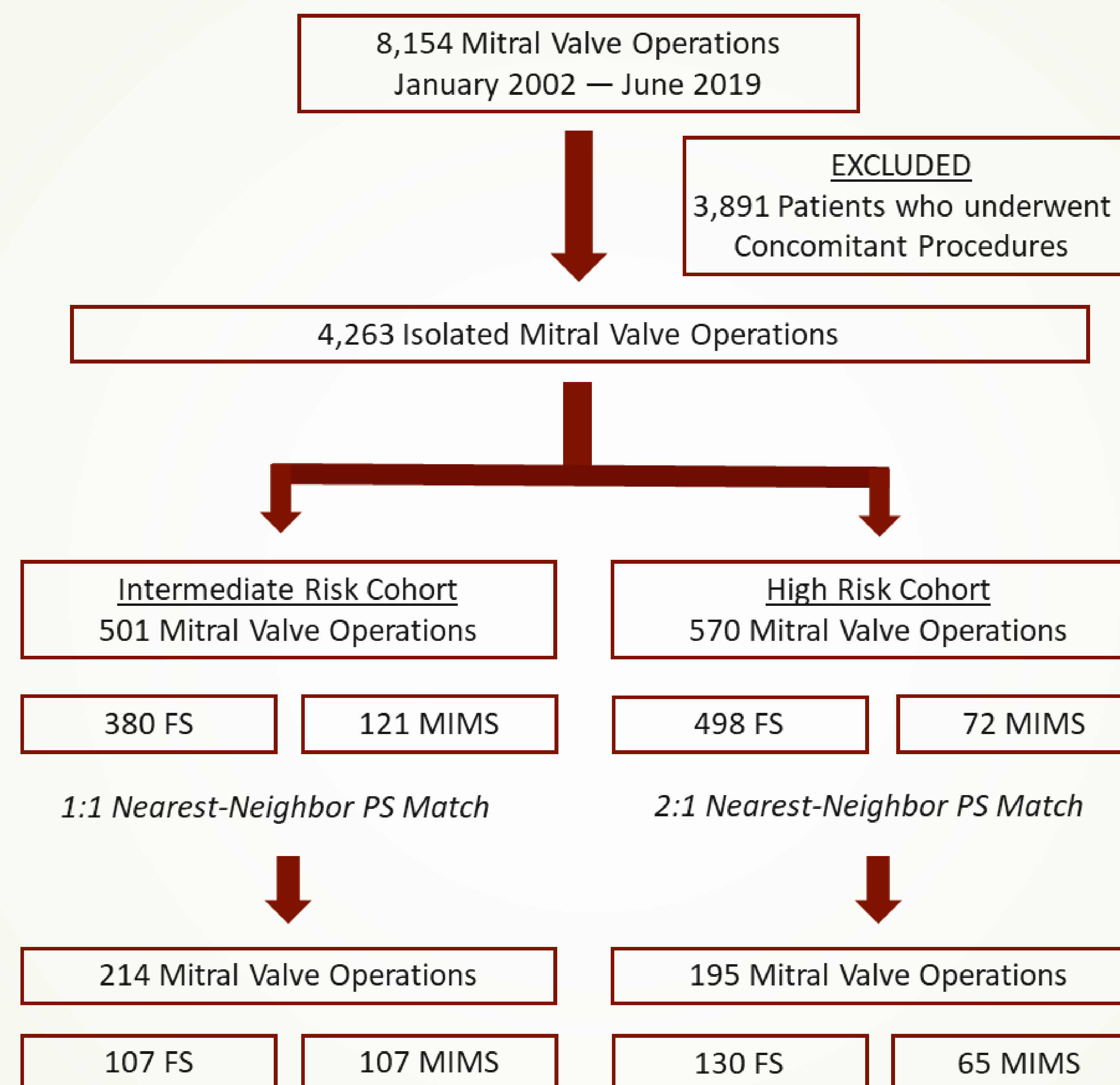
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Background

- Minimally invasive mitral surgery (MIMS) offers improved cosmesis and faster recovery compared to full sternotomy (FS)
- Given the technical challenges of MIMS and the longer operative times, concern may exist for performing MIMS in intermediate and high-risk patients
- Paucity of data exists of MIMS in these cohorts

Study Design



Methods

- Study Design: Retrospective cohort study comparing MIMS and FS in intermediate and high-risk patients
 - Intermediate-risk group: **STS PROM between 3-6%**
 - High-risk group: **STS PROM >6%**
 - Nearest Neighbor propensity score matching performed (**1:1 intermediate risk, 2:1 high risk**)
- Primary Outcomes: **30-day survival**
- Secondary Outcomes: **10-year survival** and peri-operative outcomes including ventilator time, hospital length of stay

Discussion

- Intermediate risk: MIMS patients experienced trends towards similar ventilator times (13 vs. 11.4 hours, $p=0.39$), hospital LOS (9 vs 9 days, $p=0.77$), and 30-day mortality (1.0% vs. 3.8%, $p=0.37$)
- High risk: MIMS patients saw similar trends for initial ventilator times (18.0 vs. 18.4 hours, $p=0.93$) and 30-day mortality (9.2% vs. 10.8%, $p=0.81$); however, **hospital LOS (10 vs 13 days, $p=0.04$) was decreased**
- Rates of postoperative AFib were significantly lower in the MIMS cohorts of both intermediate (69% vs. 48%, $p=0.02$) and high-risk groups (34% vs. 19%, $p=0.03$).

Results

