

Minimally Invasive Off-Pump Coronary Artery Bypass Grafting Using Subclavian Artery Inflow Source

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Background

In terms of inflow feeder to coronary target, internal thoracic artery and aorta are frequently used worldwide.

We have been tried subclavian artery as inflow when redo CABG or even first time CABG in the elderly and the frailties.

Here we report the mid-term results of this approach of minimally invasive OPCAB as single institute experiences.

Methods

From April 1998 to January 2025, among the 984 CABG patients,

MICS OPCAB in 147 patients (15%) since 2000

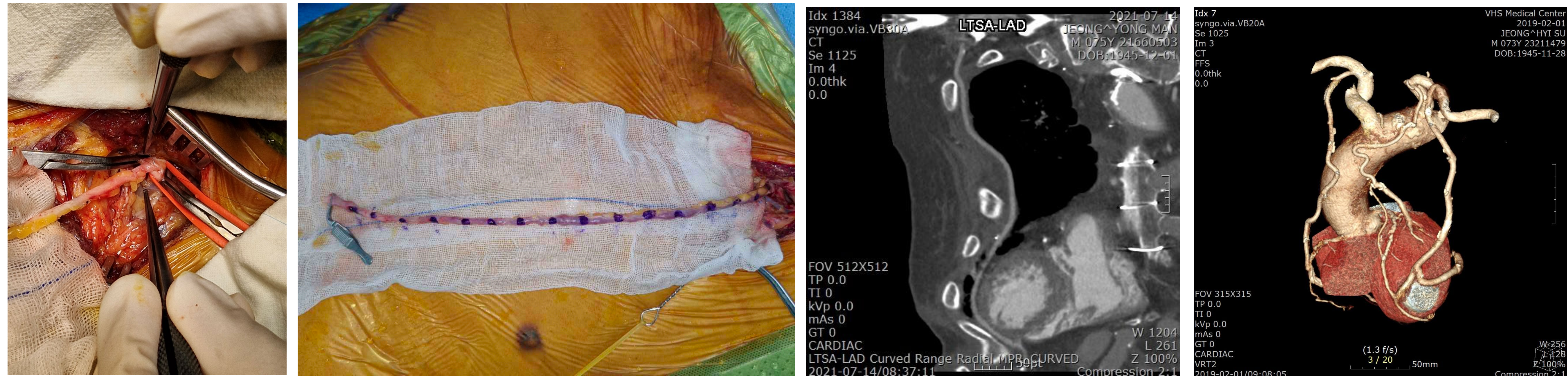
MICS OPCAB using subclavian artery inflow in 64 (7%) patients since 2016

Median age was 74 (IQR 71-75) years old, most of them were male (95%, 61 patients).

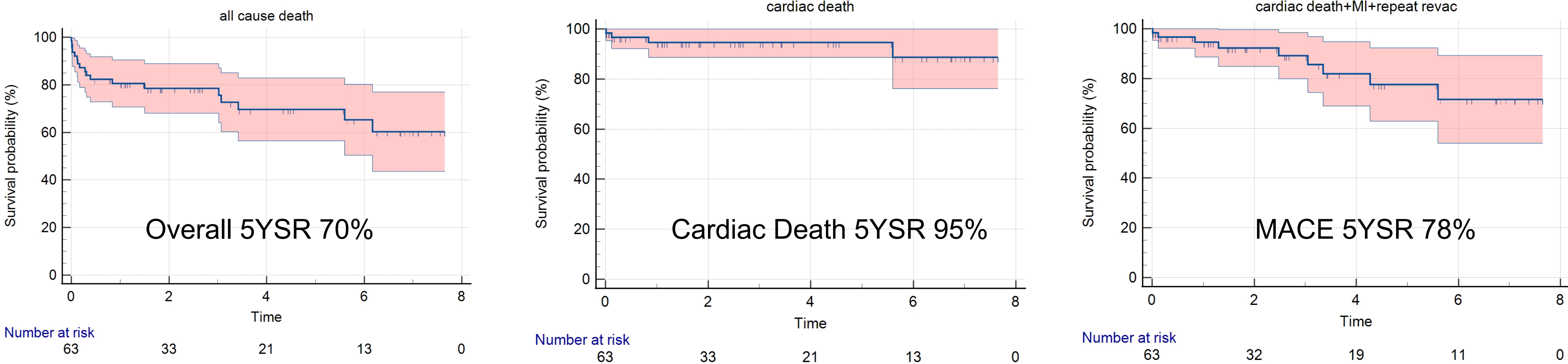
Among them, redo OPCAB was in 49 patients (77%)

STS PROM and Euroscore II were 2.91% (IQR 0.80-5.75) and 5.76% (IQR 3.02-12.59).

Survival outcome and patency from coronary CT angiography at postoperative median 1.2 years (IQR 0.02-3.04) exam in 50 patients (78%) were analyzed.



Results

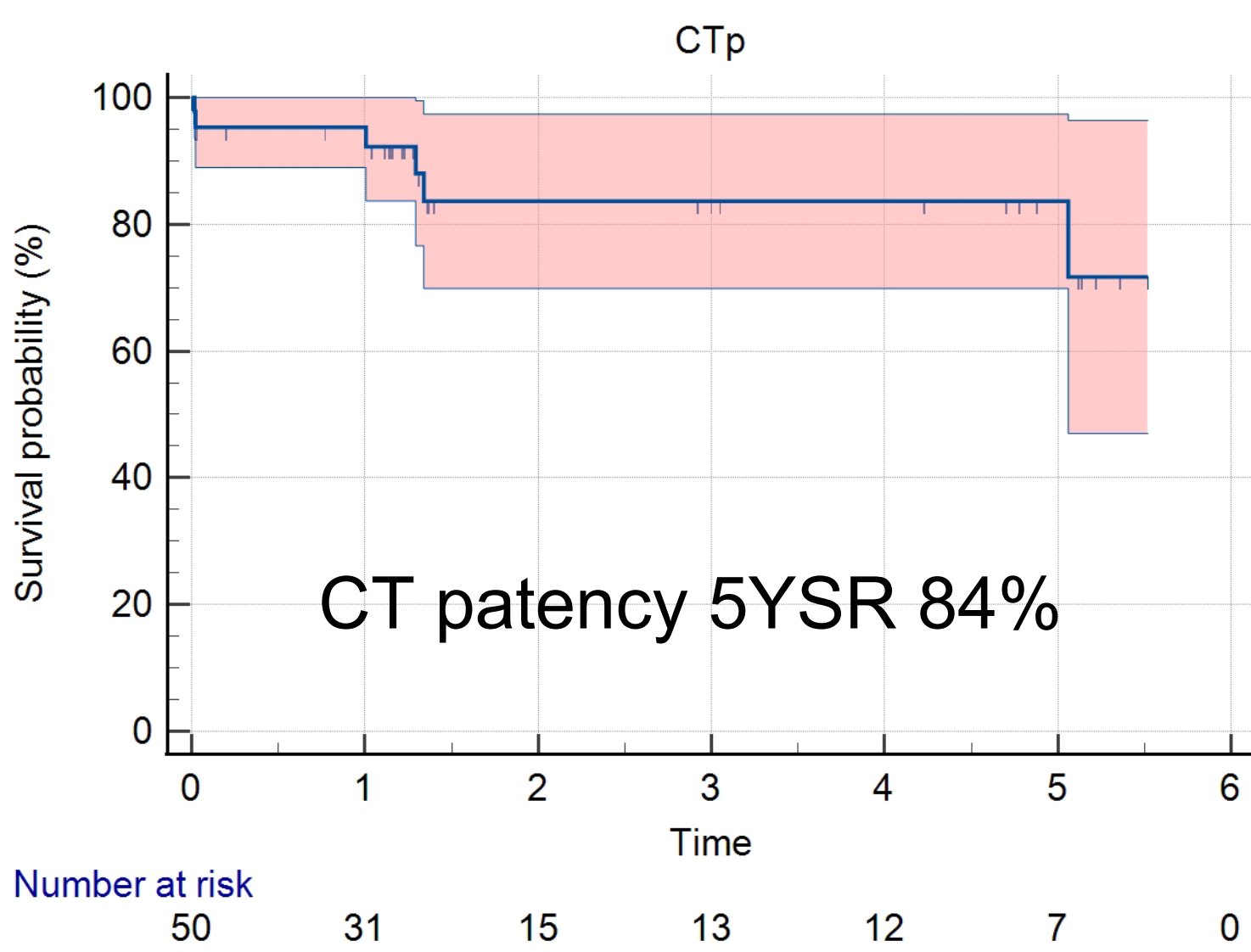


Overall mean survival time was 5.517 years (95% C.I. 4.694-6.340) and 1-,3-,5-year survival rates were 81%, 79%, 70%, respectively.

Cardiac-death free MST was 7.137 years (95% C.I. 6.654-7.620) and 1-,3-,5-YSRs were 95%, 95%, 95%, respectively.

MACE-free MST was 6.357 years (95% C.I. 5.609-7.105) and 1-,3-,5-YSRs were 95%, 90%, 78%, respectively.

Overall mean patent time was 4.707 years (95% C.I. 4.086-5.329) and 1-,3-,5-year patency rates were 95%, 84%, 84%, respectively.



Conclusion

Conducting minimally invasive off-pump subclavian artery to coronary bypass grafting could be feasible, and its mid-term results are acceptable.