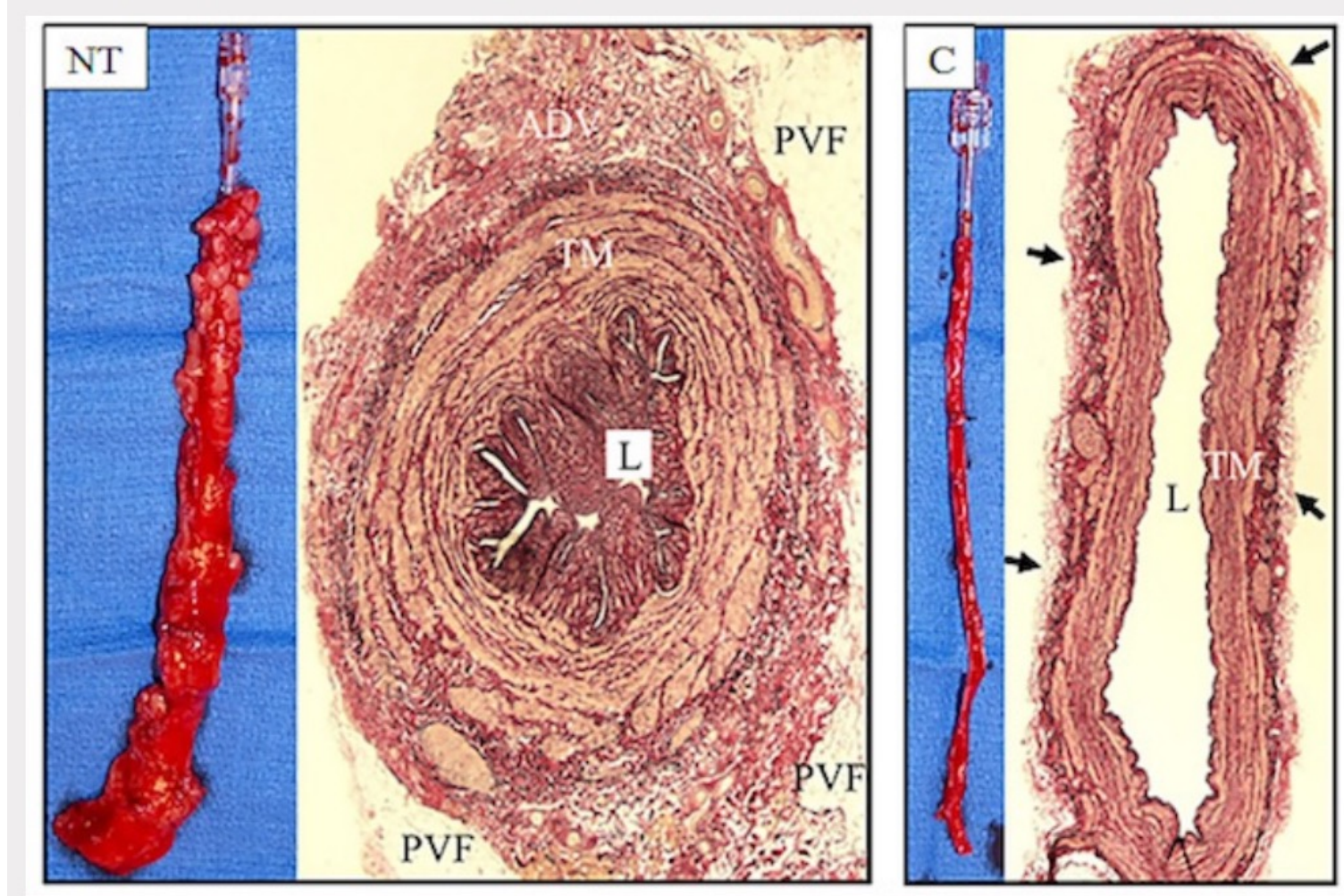


A Retrospective Study Of Coronary Artery Bypass Graft Using NTSVG

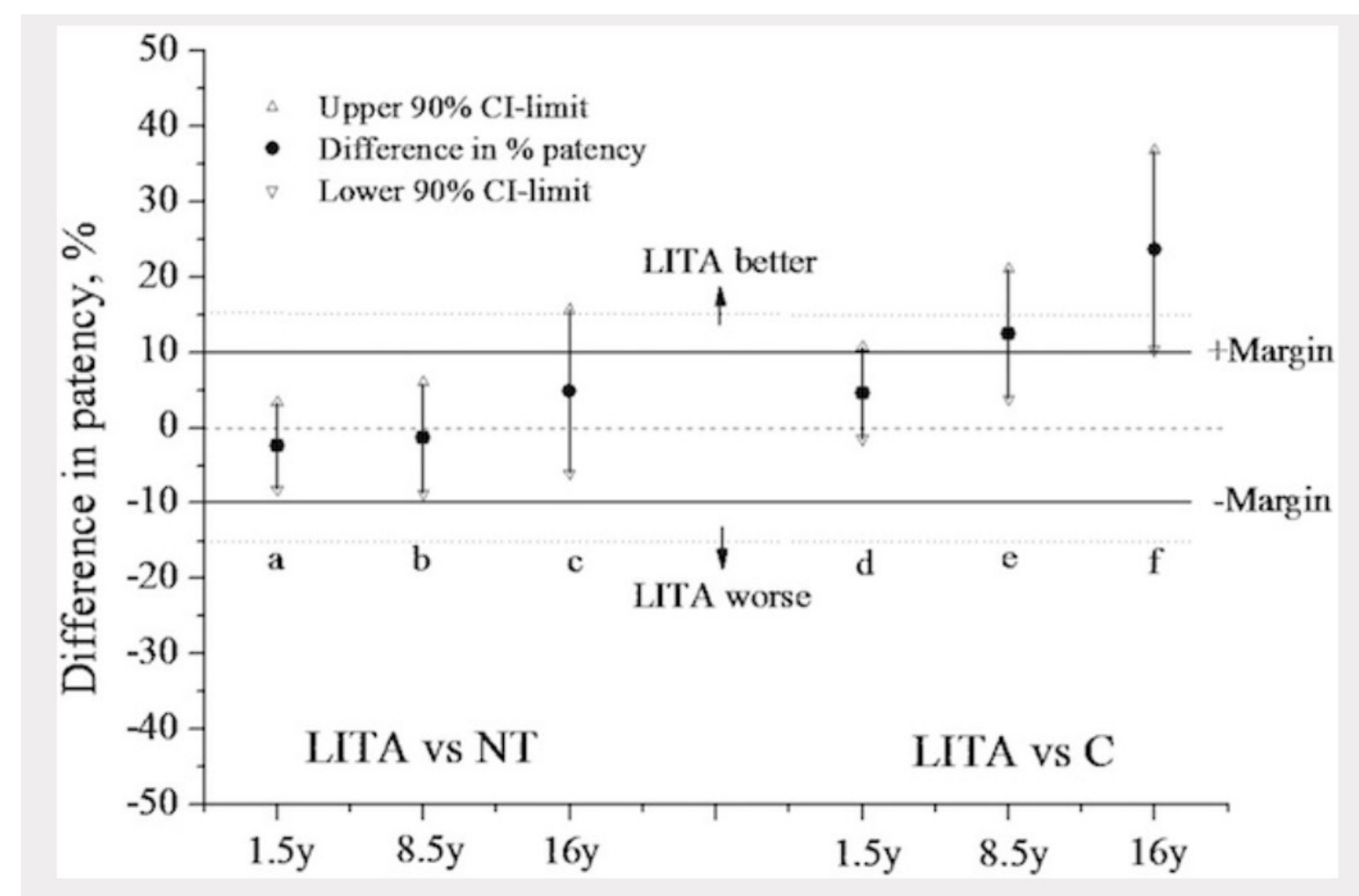
Tomohiro Nakajima, Shingo Tsushima, Itaru Hosaka, Ayaka Arihara, Akihito Ohkawa, Tsuyoshi Shibata, Jyunji Nakazawa, Yutaka Iba, Nobuyoshi Kawaharada
Department of Cardiovascular Surgery, Sapporo Medical University, Sapporo, Hokkaido, Japan

Background

We focused on coronary artery bypass grafting using the great saphenous vein (G-SVG) and compared NT-SVG and conventional SVG.



Examples of no-touch (NT) and conventional (C) saphenous vein (SV) grafts.



No-touch (NT) patency was equal to LITA.
Brazilian Journal of Cardiovascular Surgery, 2020

Object

Comparison NT-SVG- with conventional SVG

- Graft patency
- Surgical site infection (Deep, Superficial)
- Graft flow (ml/min)

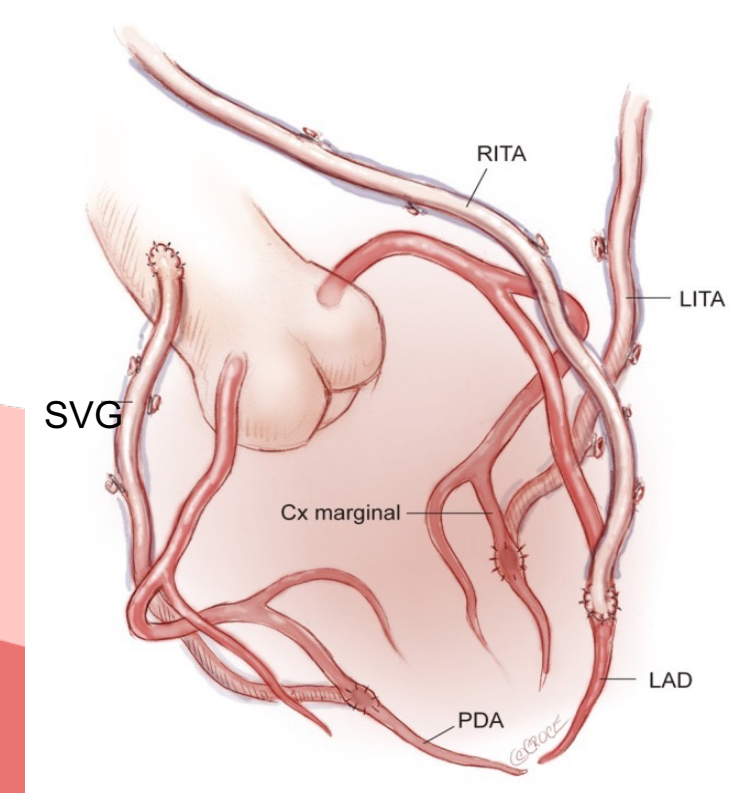
Methods

Coronary artery bypass grafting using the great saphenous vein was performed at our hospital over a 15-year period from 2007/04 to 2022/08.

The primary endpoint was the patency of the great saphenous vein at discharge, and secondary endpoints were delayed healing of the great saphenous vein harvest wound, delayed healing of the mid-thoracic wound, and factors related to coronary artery bypass surgery.

Basic concept for CABG @ Our institute

- OPCAB at isolated CABG
- Use of Bilateral ITA
- Use SVG or radial artery for the other lesions



Results

Table 1. Demographics and Comorbidities

Variables	Overall (N = 183)
Age, years	69.2 ± 9.4
Male	131 (72)
Body mass index, kg/m ²	1.65 ± 0.20
Hypertension	80 (43)
Dyslipidemia	58 (31)
Diabetes mellitus(Drug)	44 (24)
Diabetes mellitus(Insulin)	32(17)
Smoking	118 (64)
Logistic Euroscore	7.2[0.8-68.3]

Table 2. Procedure Characteristics

Variables	Overall (N = 183)
No. of distal anastomoses per patient	3.0± 1.4
Use of graft for CABG	
Bilateral ITA	76 (42)
LITA	133 (73)
RITA	79 (43)
GEA	14 (8)
Saphenous vein	183(100)
NT-SVG	29(16)
Conventional SVG	154(84)
OPCAB	85(44)
On-pump beating CABG	22(12)
On-pump arrest CABG	86(47)
Urgency	
Elective	152 (83)
Emergent	31 (17)
Procedure	
Isolated CABG	98 (54)
CABG+Valve surgery	63 (34)
CABG+Aorta	14 (8)
Aortic dissection+CABG	8 (4)
Unplanned CABG	8 (4)
Operation time of open repair (min)	482 ± 137

Table 3. Comparison NT- SVG with Conventional SVG

	NT-SVG (n=29)	Conventional SVG(n=154)	p
Graft Patency at discharge	27(93%)	143(93%)	0.64
Superficial SSI at lower extreme	4(14%)	12(8%)	0.29
Deep SSI at lower extreme	1(3%)	7(5%)	0.63
Superficial SSI at thoracic lesion	0	9(6%)	0.20
Mediastinitis	0	2(1%)	0.71
TTFM Flow (ml/min)	27	38	0.31

SSI; Surgical site infection, TTFM; transit time flow meter

Conclusions

There were no significant differences in perioperative outcomes between the NT-SVG and conventional SVG groups in this study.

References

- V-composite grafting using the right internal thoracic artery grafts anastomosed to aorto-coronary bypass grafts . Eur J Cardiothorac Surg. 2015 ;48(5):753-7.
- Comparison of Phenotypes in Subcutaneous Fat and Perivascular Adipose Tissue Surrounding the Saphenous Vein in Coronary Artery Bypass Grafting. Circulation Journal. E-published ahead.