

# 冠動脈外科学会学術委員会

## 2022年レジストリー報告 (2021年分データ)

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JACAS、JCVSD

第25回冠動脈外科学会学術大会 JPタワーホール4階、第1会場  
2022/12/01



2022/12/01

第25回冠動脈外科学会学術大会 JPタワーホール



# The 25th Annual Meeting of the Japanese Association for Coronary Artery Surgery

## Disclosure of COI

本村昇、齋藤綾、隈丸拓、荒井裕国  
JACAS学術委員会、JCVSD

**There are no businesses, etc. related to COI  
that should be disclosed in regard to the  
subject presentation.**

# Yearly number of CABG (by procedure- base)

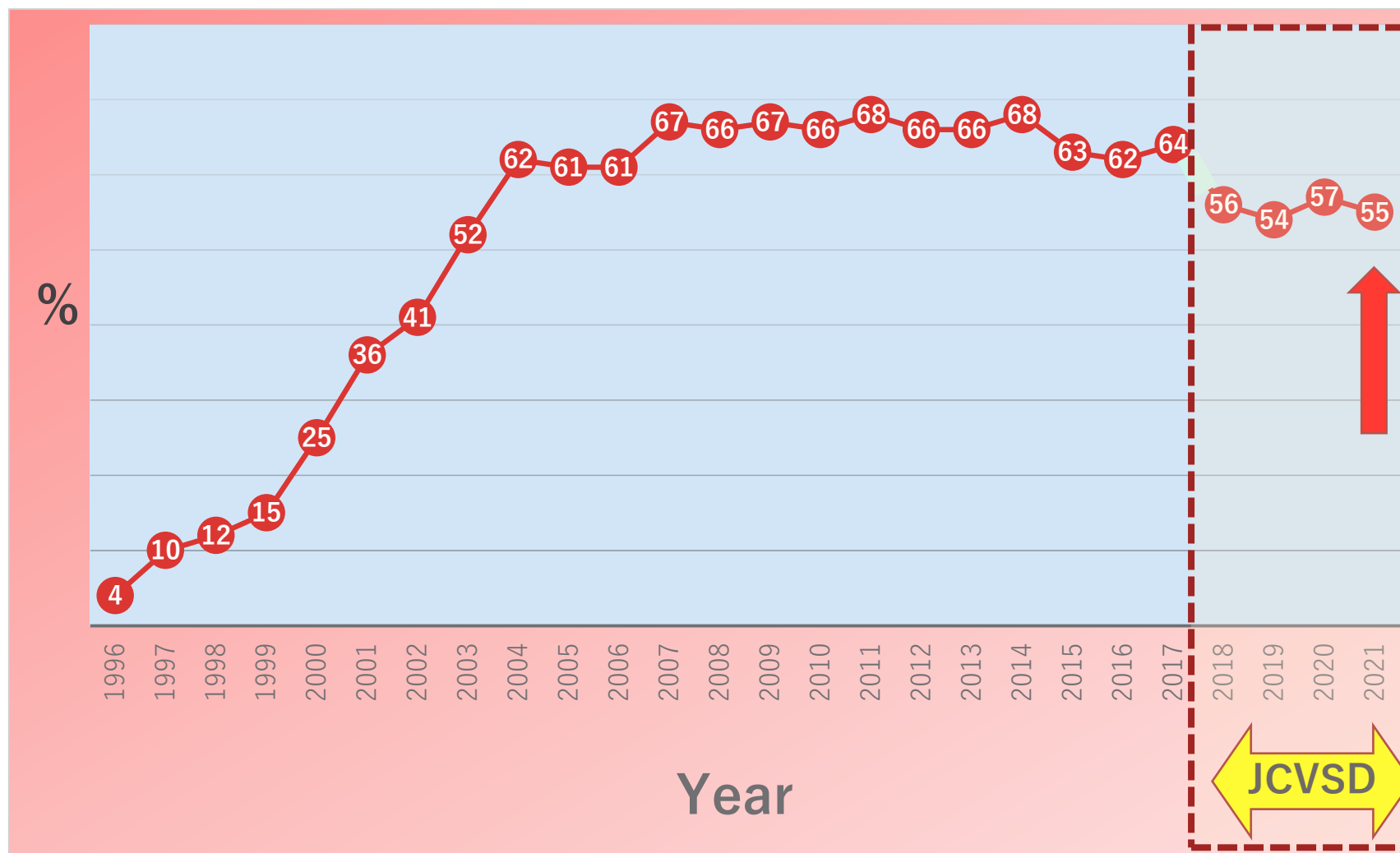
		2021		2020
Yearly total number		<b>17,715</b>		17,975
Isolated CABG			Initial elective	Non-elective
		<b>11,703</b> (63%)	7,496	3,577
	OPCAB		4,107 <b>55%</b>	1,709 (48%)
	ONCAB		3,389 (45%)	1,868 (52%)
Concomitant CABG		6,642 (37%)		6,803 (38%)



# Yearly number of CABG (by procedure- base)

		2021 [前年比]			2020		
Total Number		17,715 [-1.5%]			17,975		
Isolated CABG			Initial elective	Non-elective		Initial elective	Non-elective
		11,073 [-1%]	7,496 [-1.2%]	3,577 [-0.3%]	11,172	7,585	3,587
	OPCAB		4,107 [-4%] (55%)	1,709 [-2%]		4,286 (57%)	1,739
	ONCAB		3,389 [+3%]	1,868 [+1%]		3,299	1,848
Concomitant CABG		6,642 [-5%]			7038 (36%)		

# Changes of OPCAB rate (Initial elective CABG)



# Gender distribution 2021

	Female	Male	Total	(2020)
< 50	63	478	541	537
50 – 59	169	1237	1406↑	1,342
60 – 69	438	2405	2843↓	3,020
70 – 79	1057	3620	4677	4,690
80 =<	470	1136	1606↑	1,583
<b>Total</b>	<b>2197</b>	<b>8876</b>	<b>11073↓</b>	<b>11,172</b>



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# Operative mortality

= 30 day operative mortality

≠ in Hospital mortality

**In-hospital mortality** was defined as death at the institution where surgery was performed.

**Operative mortality** was defined as death during the same hospitalization as surgery or after discharge but within 30 days of the procedure

# Mortality: Definition

**Operative mortality** : definition  
in STS National Database / JCVSD

(1) all deaths, regardless of cause, occurring during the hospitalization in which the operation was performed, even if after 30 days (including patients transferred to other acute care facilities);

and  
(2) all deaths, regardless of cause, occurring after discharge from the hospital, but before the end of postoperative day 30.



# Mortality- isolated CABG cases 2021

		N	30-day mortality		Operative mortality	
Isolated cases		11,073	197	1.8%	316	2.9%
Isolated, Initial, Elective		7,496	49	0.7%	81	1.1%
	Off-pump Intended	4,107	26	0.6%	42	1.0%
	Completed	3,996	21	0.5%	36	0.9%
	Converted	111 2.7%	5	4.5%	6	5.4%
	On-pump Intended	3,389	23	0.7%	39	1.2%
	Arrest	1,549	5	0.3%	11	0.7%
	Non-arrest, Vf	1,158	14	1.2%	23	2.0%
	No information	682	4	0.6%	5	0.7%

Operative mortality = 30 day operative mortality ≠ Hospital mortality

# Mortality- isolated CABG cases 2021 [2020]

		N	30-day mortality		Operative mortality	
Isolated cases		11,073	197	1.8% [1.8]	316	2.9% [2.8]
Isolated, Initial, Elective		7,496	49	0.7% [0.7]	81	1.1% [1.1]
	Off-pump Intended	4,107	26	0.6% [0.4]	42	1.0% [0.7]
	Completed	3,996	21	0.5% [0.3]	36	0.9% [0.6]
	Converted	111 2.7%	5	4.5% [5.3]	6	5.4% [7.4]
	On-pump Intended	3,389	23	0.7% [1.1]	39	1.2% [1.7]
	Arrest	1,549	5	0.3% [0.8]	11	0.7% [1.5]
	Non-arrest, Vf	1,158	14	1.2% [1.7]	23	2.0% [2.4]
	No information	682	4	0.6% [0.6]	5	0.7% [0.8]

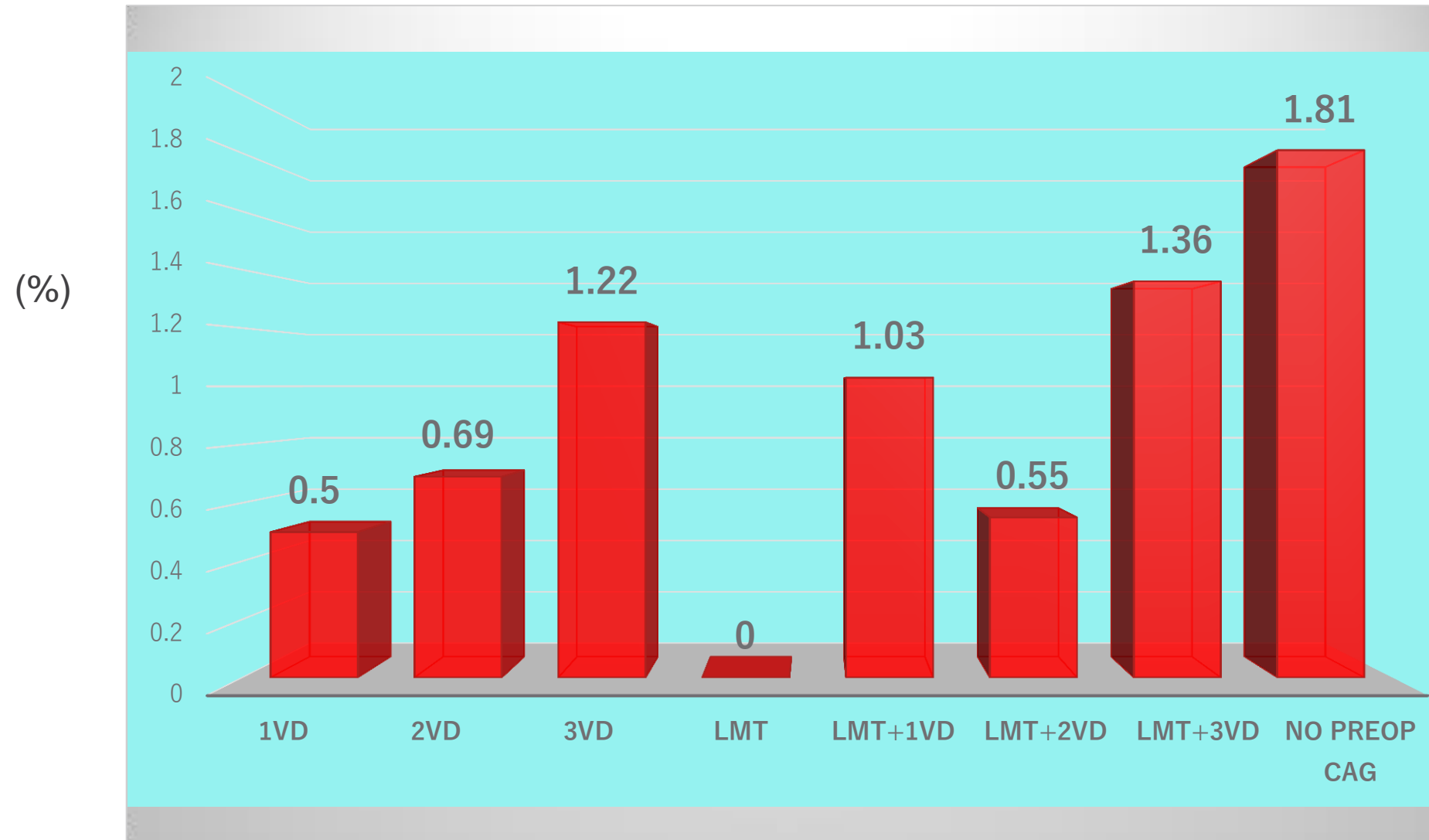


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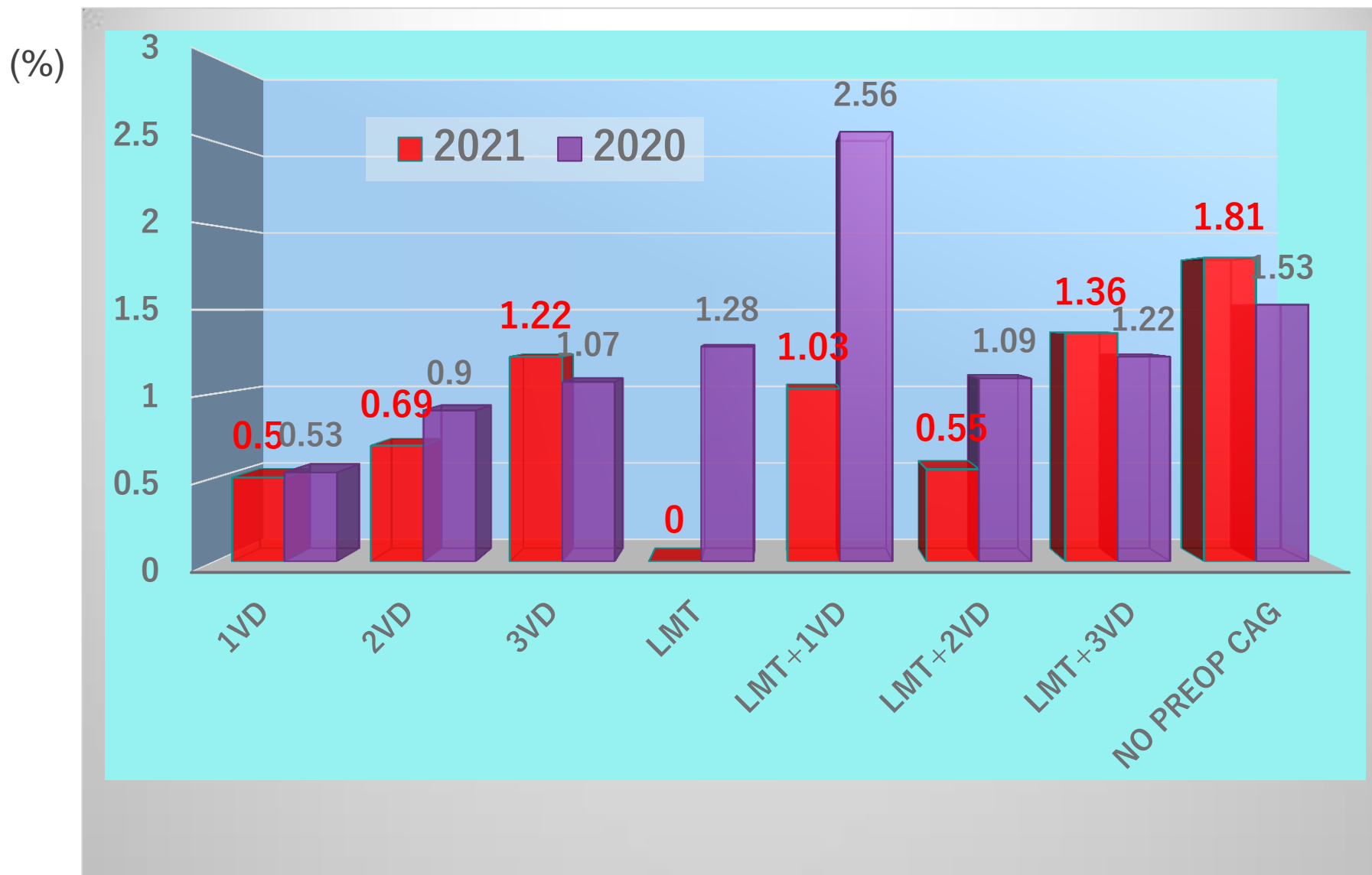
Operative mortality = 30 day operative mortality ≠ Hospital mortality



# Hospital Mortality by extent of CAD(%) 2021



# Hospital Mortality by extent of CAD(%) 2021, 2020

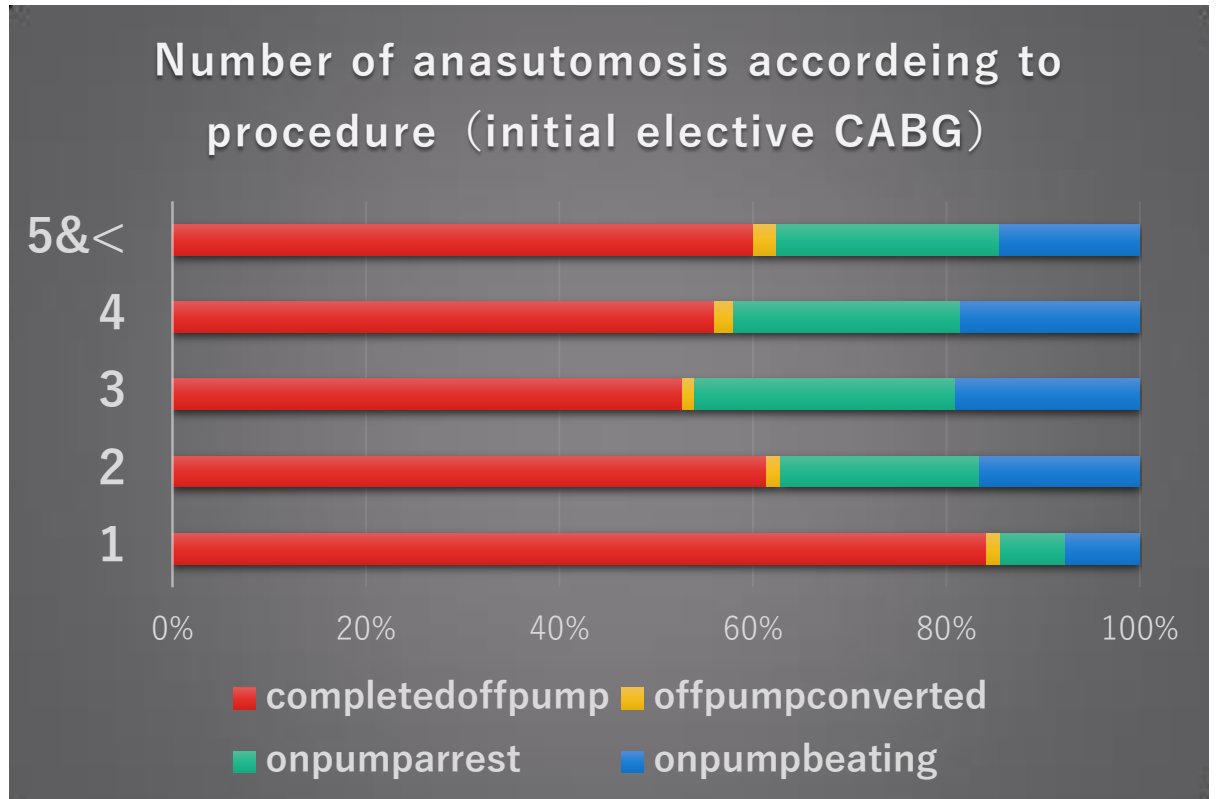


# Number of anastomosis according to procedure (initial elective CABG)

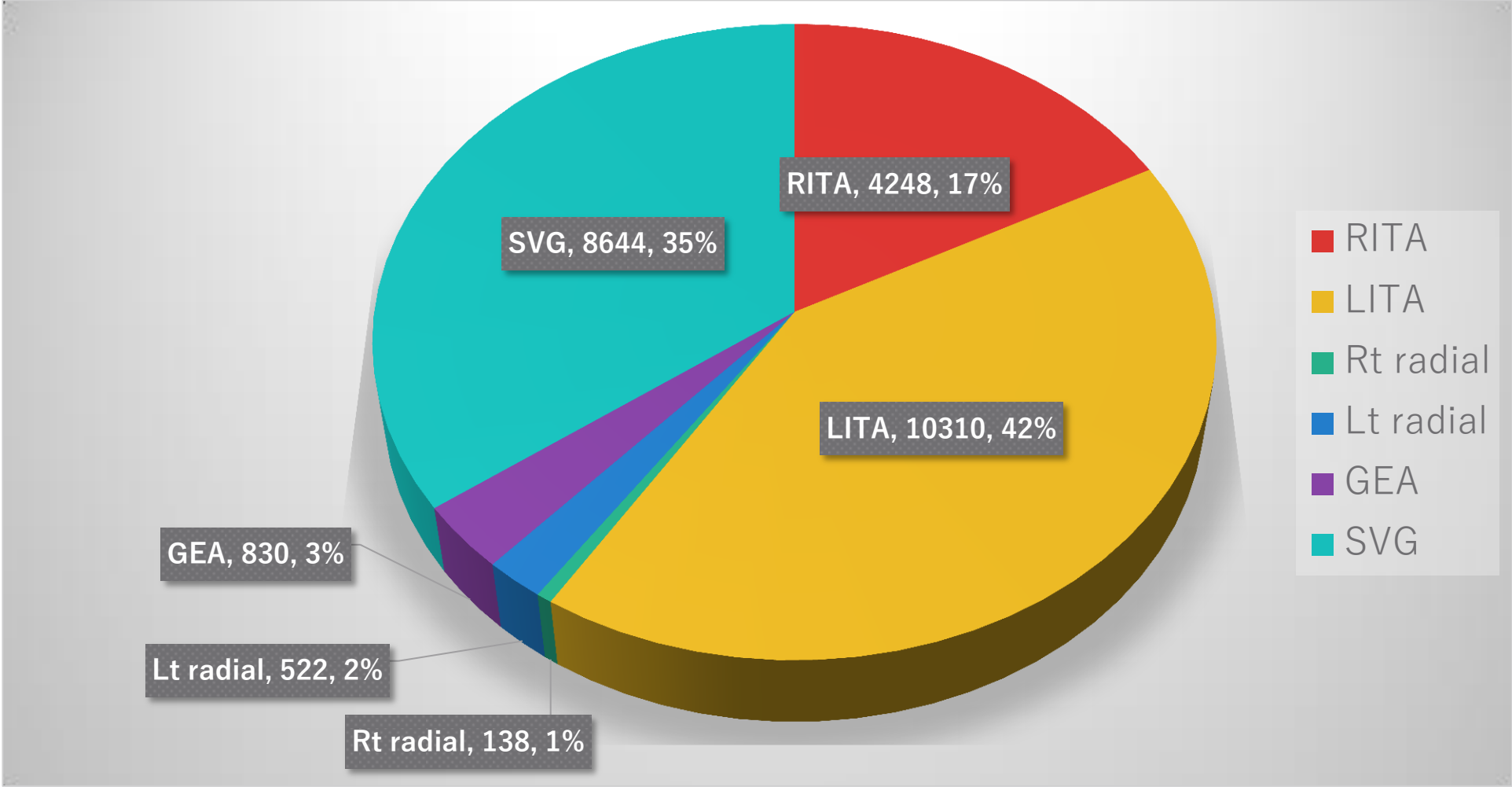
詳細不明症例を除外

anastomosis	off-pump completed	off-pump converted	on-pump arrest	on-pump beating
1	462	8	37	42
2	905	22	303	245
3	1320	33	676	477
4	884	31	370	292
5=<	422	17	162	102

平均吻合数2021 [2020] : 3.1 [3.1]



# Graft use 2021



# Graft selection for elective cases; JCVSD 2017 & 2018

A. Saito, et al, Asian Cardiovascular & Thoracic Annals 2021, Vol. 29(4) 294–299

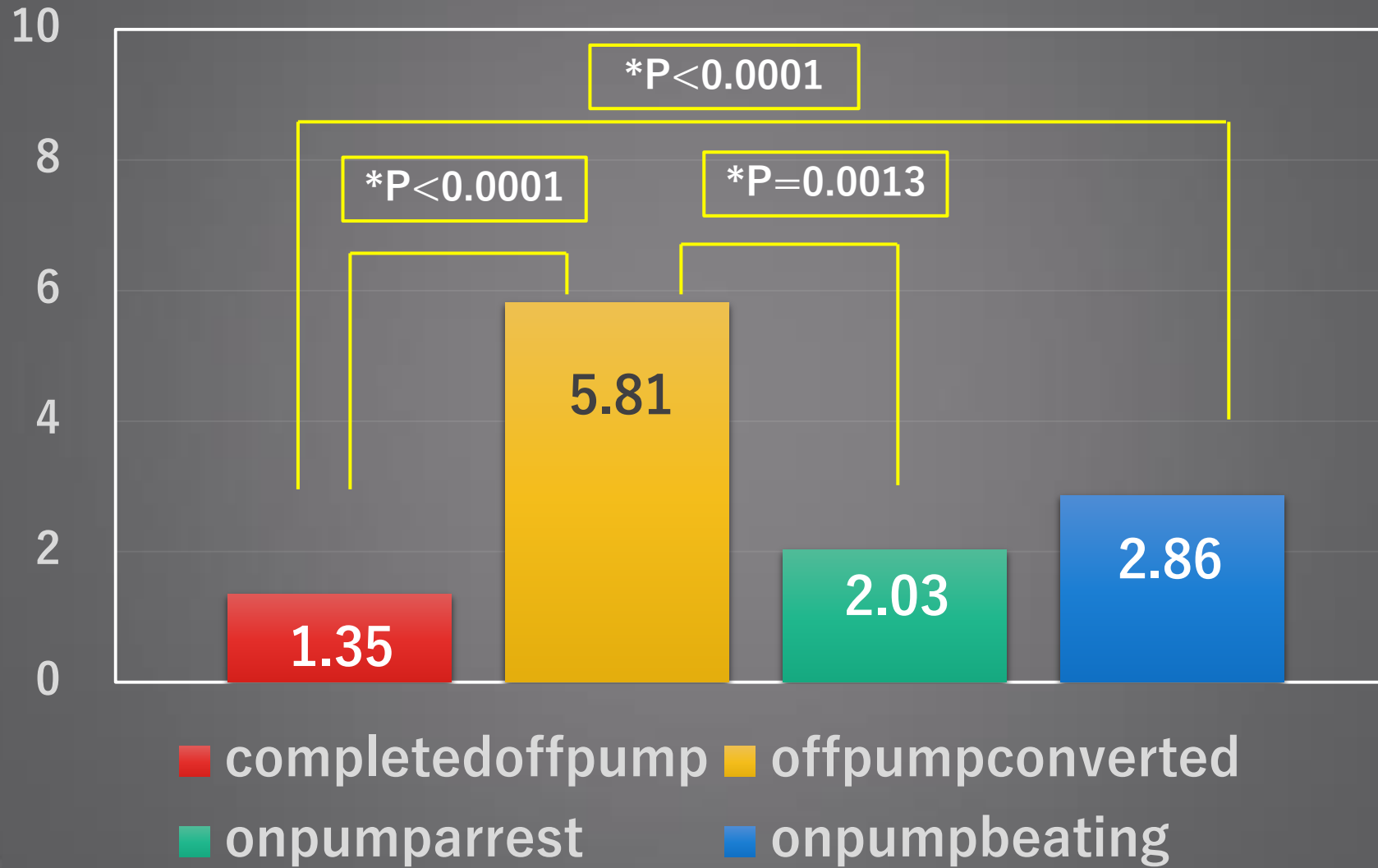
**Table 2-1.** Graft selection for elective cases.

Age (years)	Overall	SITA <b>59%</b>						BITA <b>37%</b>						No ITA <b>4%</b>
		Total SITA	With SVG	Without SVG				Total BITA	With SVG	Without SVG				No ITA
				no RA, no GEA	RA+GEA	RA no GEA	GEA no RA			no RA, no GEA	RA+GEA	RA no GEA	GEA no RA	
n	<b>22168</b>	<b>12991</b>	10508	1440	133	587	323	<b>8183</b>	5453	1675	36	220	799	<b>994</b>
~49	<b>1149</b>	<b>548</b> 47.7%	348	90	16	58	36	<b>560</b> 48.7%	326	109	6	31	88	<b>41</b> 3.6%
50~59	<b>2574</b>	<b>1253</b> 48.7%	942	139	40	84	48	<b>1234</b> 47.9%	827	202	8	55	142	<b>87</b> 3.4%
60~69	<b>6863</b>	<b>3719</b> 54.2%	2997	380	49	198	95	<b>2883</b> 42.0%	1910	577	13	73	310	<b>261</b> 3.8%
70~79	<b>8853</b>	<b>5530</b> 62.5%	4636	559	25	195	115	<b>2901</b> 32.8%	2004	615	7	52	223	<b>422</b> 4.8%
80~	<b>2729</b>	<b>1941</b> 71.1%	1585	272	3	52	29	<b>605</b> 22.2%	386	172	2	9	36	<b>183</b> 6.7%

BITA: bilateral internal thoracic arteries; ITA: internal thoracic artery; GEA: gastroepiploic artery; RA: radial artery; SVG: saphenous vein graft; SITA: single internal thoracic artery.

**2019&2020 Overall:18008, SITA:10483 (58%), BITA: 6860 (38%), No ITA: 665 (4%)**

# Stroke rate according to procedures





# LV failure due to AMI 2021

	N	30-day mortality	Operative mortality
Papillary muscle rupture	89	17 (19.1%)	24 (27.0%)
LV free wall rupture	270		
Blow-out type	92	38 (41.3%)	47 (51.1%)
Oozing type	175	34 (19.4%)	42 (24.0%)
LV aneurysm	17	0 (0.0%)	0 (0.0%)



# Procedures to ischemic MR 2021

		N	30-day mortality	Operative mortality
<b>Ischemic MR</b>		<b>317</b>	<b>21 (6.6%)</b>	<b>30 (9.5%)</b>
	Mitral valve plasty	<b>201</b>	<b>13 (6.5%)</b>	<b>16 (8.0%)</b>
	+LV procedure	<b>17</b>	<b>1 (5.9%)</b>	<b>1 (5.9%)</b>
	Mitral valve replacement	<b>116</b>	<b>8 (6.9%)</b>	<b>14 (12.1%)</b>
	+LV procedure	<b>8</b>	<b>1 (12.5%)</b>	<b>1 (12.5%)</b>

