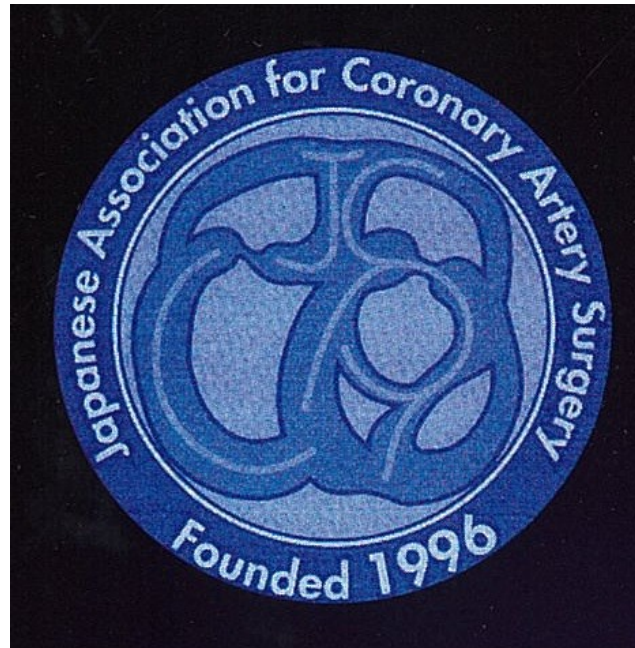


# Coronary artery surgery results In 2018



The Survey Committee of Japanese Association  
for Coronary Artery Surgery (JACAS)

## Coronary artery bypass grafting (CABG), 2017

<u>Total cases</u>	: 12,584
Isolated CABG	: 8,497 (68%)(previous year:67%)
Concomitant CABG	: 4,087 (32%)(previous year:33%)

### Isolated CABG

Initial elective	: 7,144	Except initial elective	: 1,353
Off-pump	: 4,562	Off-pump	: 646
On-pump	: 2,582	On-pump	: 707
(Off-pump rate : 64%)		(Off-pump rate : 48%)	
(previous year : 62%)		(previous year : 51%)	



## Coronary artery bypass grafting (CABG), 2018

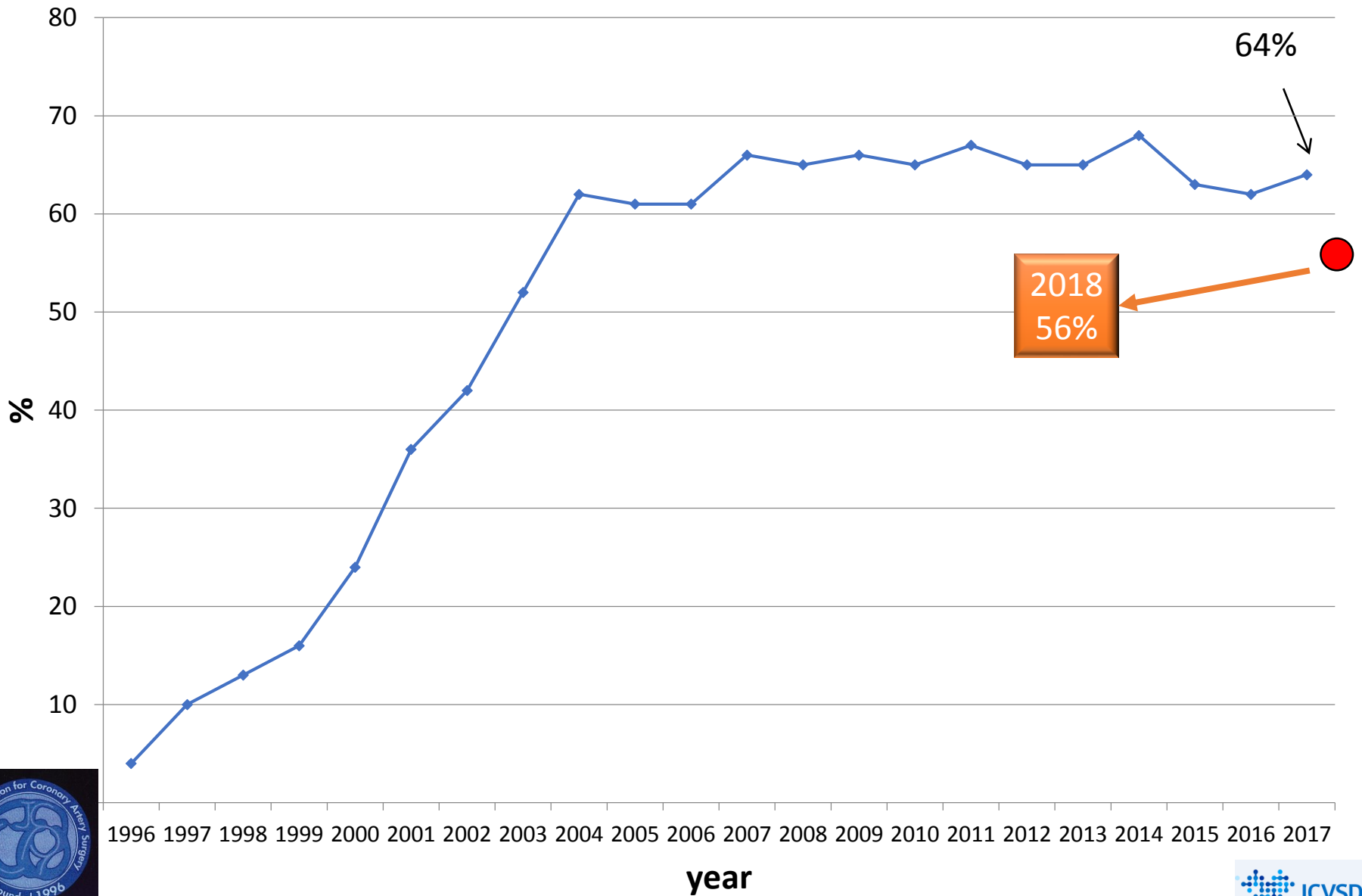
Overall	2018 ( data from JCVSD)		2017 (questionnaire by JACAS)	
Total no	20,271		12,584	
Isolated CABG	13390	66.1%	8497	68%
Concomitant CABG	6881	33.9%	4087	32%

Isolated CABG	Initial elective			Non-elective		
20271	n=10847			N=2543		
Off-pump	6069	56.0%	( 64%)	1178	46.3%	(48%)
On-pump	4778	44.0%		1365	53.7%	

カッコ内は2017年JACASデータ



# Changes of off-pump CABG rate (Initial elective CABG)



# Initial elective CABG (n=10847) in 2018

	total	10847		
On-pump intended	arrest	2247	47%	
n=4778, 44%	Non-arrest, Vf	1622	34%	
	Info missed	909	19%	
Off-pump intended	completed	5908	97.3%	(97.1%)
n=6069, 56%	converted	161	2.7%	(2.9%)

カッコ内は2017年JACASデータ



# 死亡率の定義

死亡率（JACAS）

手術死亡は手術後**30日以内**の全ての死亡とします。

## **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.

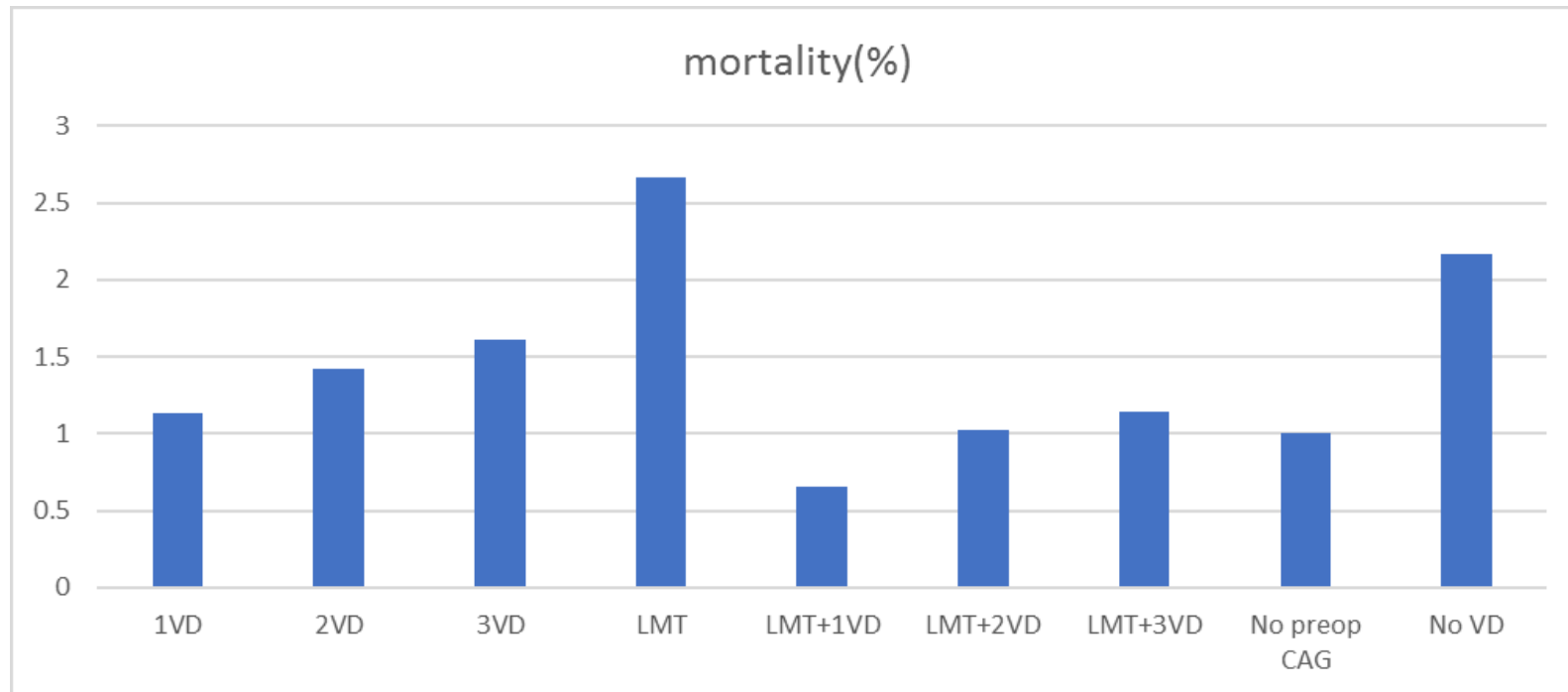
## Mortality: isolated CABG cases in 2018

		n	30-day mortality		Operative mortality		30d mort. in 2017
Isolated		13390	209	1.6%	332	2.5%	1.52
Isolated, Initial elective		10847	82	0.8%	146	1.3%	0.81
On-pump intended	arrest	2247	20	0.9%	35	1.6%	0.73
	non-arrest, Vf	1622	18	1.1%	36	2.2%	1.59
	Info missed	909	6	0.7%	13	1.4%	-----
Off-pump intended	completed	5908	34	0.6%	55	0.9%	0.61
	converted	161	4	2.5%	7	4.3%	2.29

In hospital (Operative) mortality: any death, regardless of cause, occurring (1) within 30 days after surgery in or out of the hospital, and (2) after 30 days during the same hospitalization subsequent to the operation.

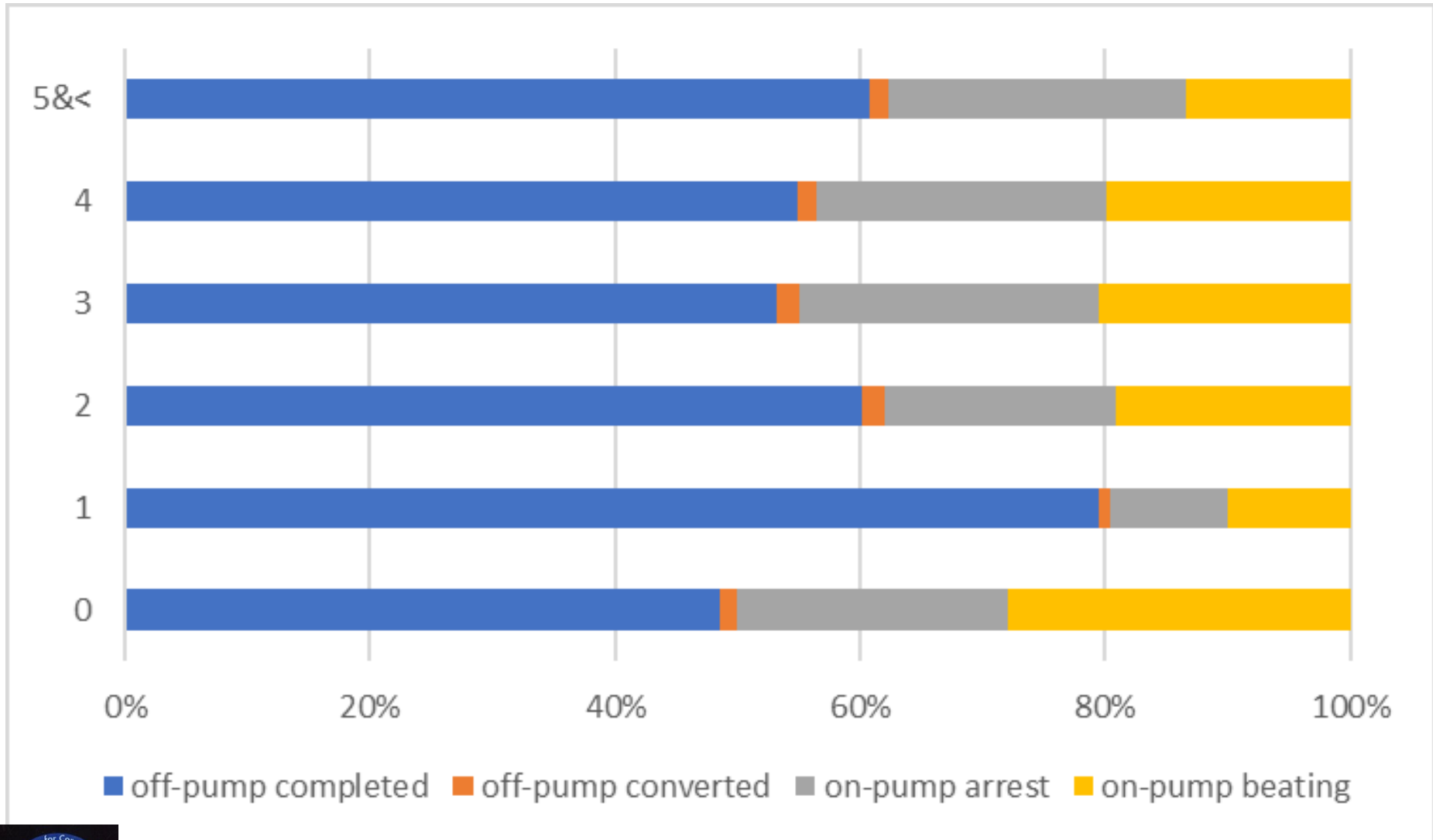
## Mortality according to number of diseased vessels

	1VD	2VD	3VD	LMT	LMT+1 VD	LMT+2 VD	LMT+3 VD	No preop CAG	No VD
Mortal ity(%)	1.13	1.42	1.61	2.67	0.66	1.02	1.14	1	2.17

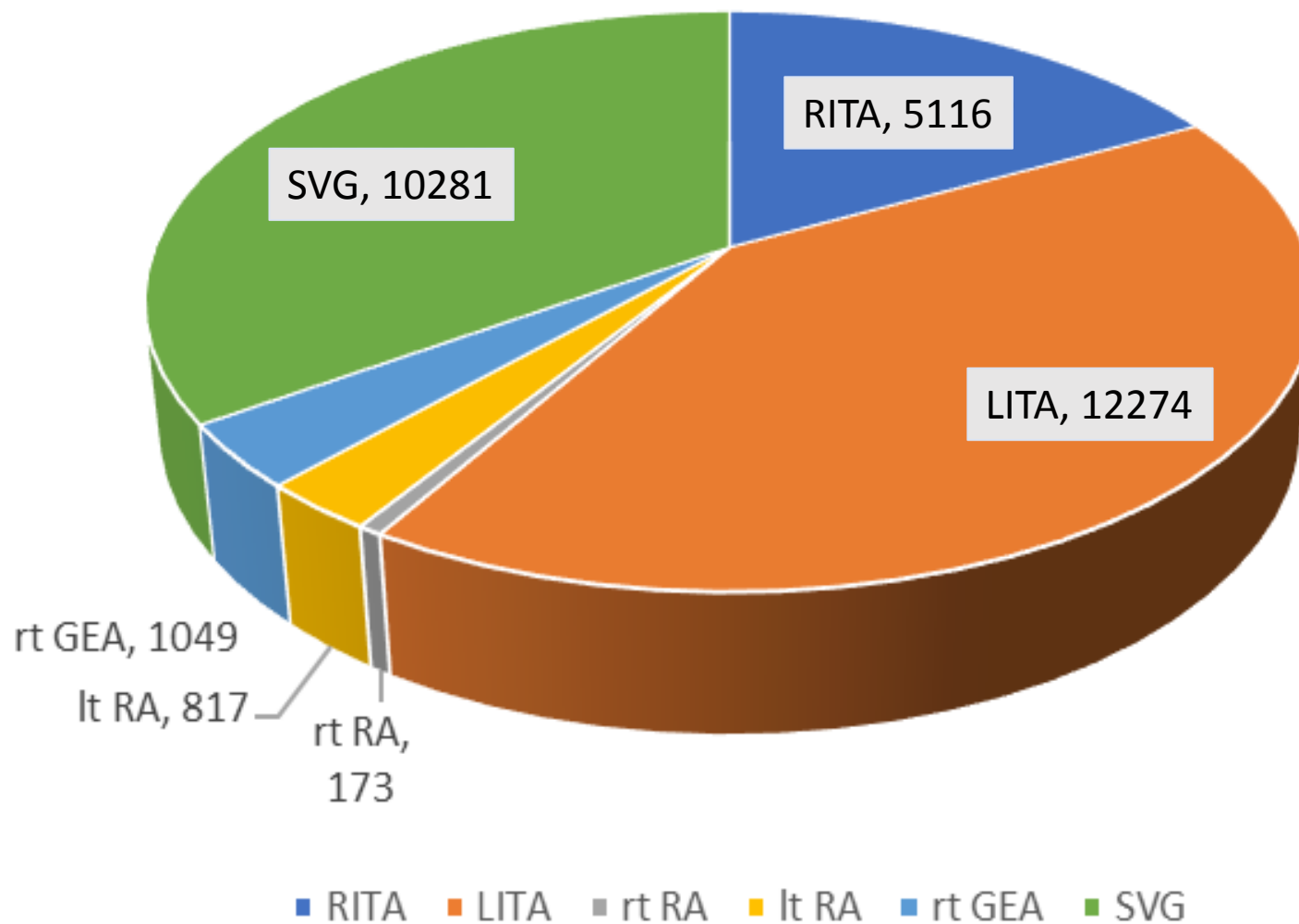




# Number of anastomosis according to procedure (initial elective CABG)

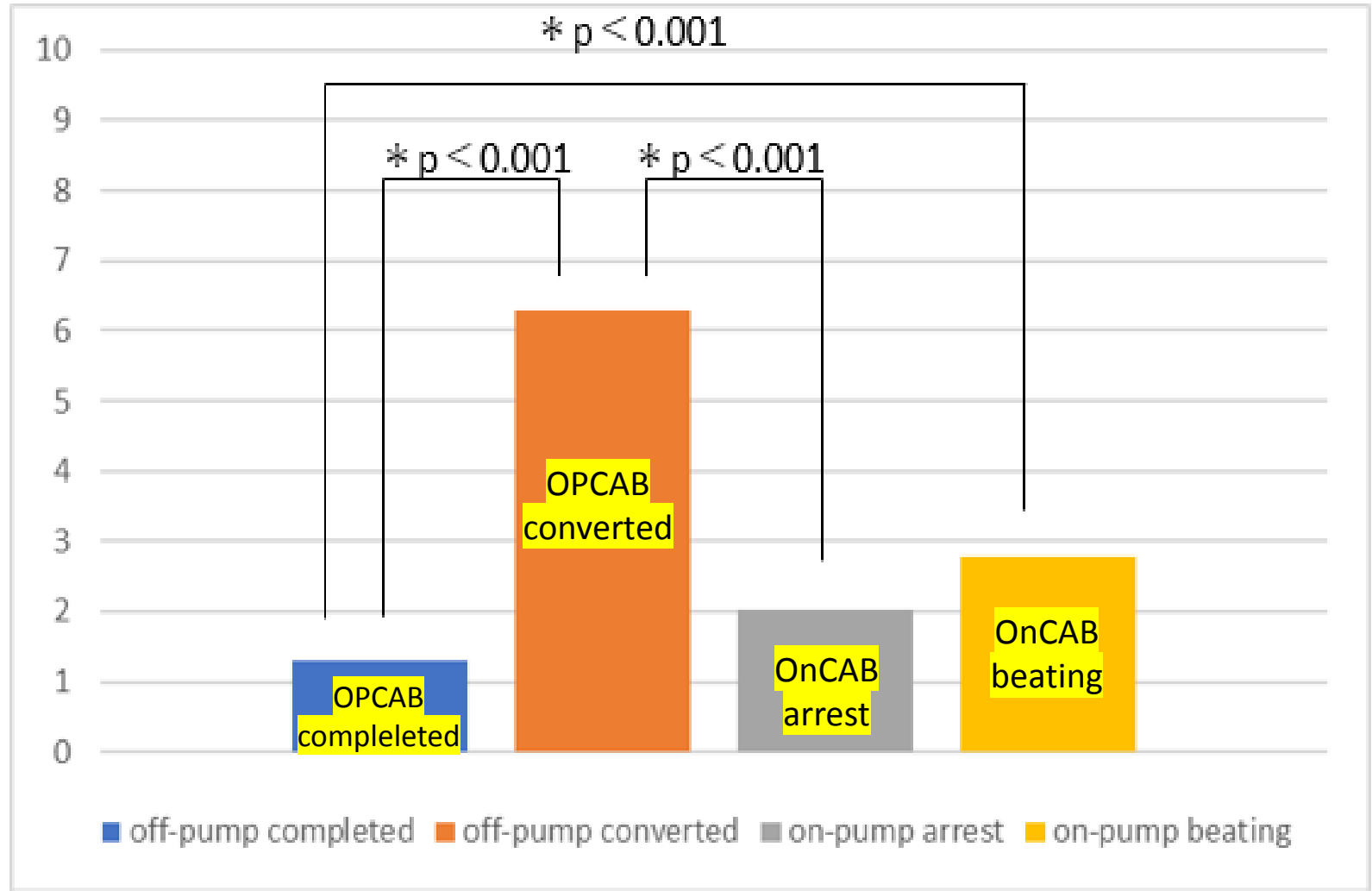


# Graft selection



# Stroke rate according to procedures

(%)



## Yearly number of CABG (by procedure- base)

		2018 (Data from JCVSD)		2017 (Questionnaire by JACAS)
Yearly total number		20,271		12,584
Isolated CABG			Initial elective	Non-elective
		13,390 (66%)	10,847	2,543
	OPCAB		6069 (56%)	1178 (46%)
	ONCAB		4778 (44%)	1365 (54%)
Concomitant CABG		6881 (34%)		4087 (32%)



# Gender distribution

	Female	Male	Total
< 50	91	576	667
50 – 59	186	1310	1496
60 – 69	654	3222	3876
70 – 79	1253	4222	5475
80 =<	616	1260	1876
<b>Total</b>	<b>2800</b>	<b>10590</b>	<b>13390</b>

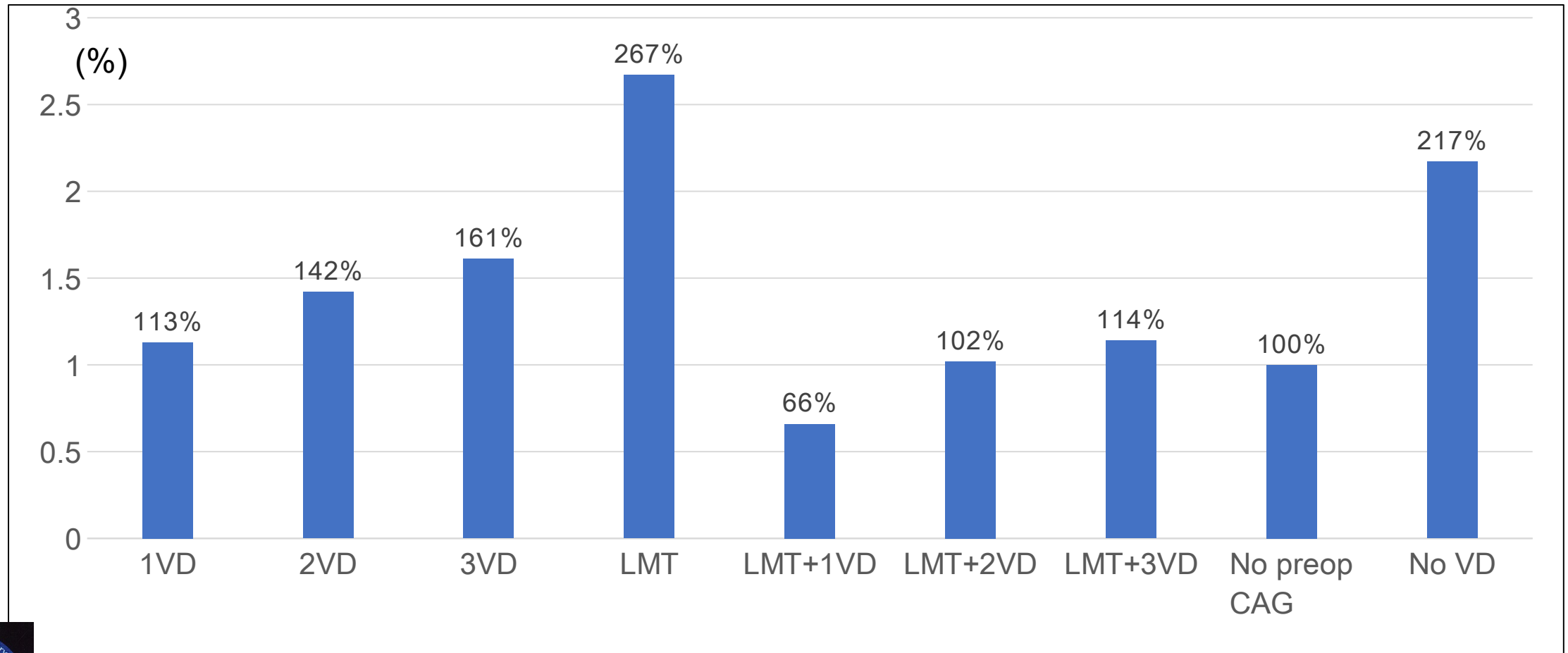


# Mortality- isolated CABG cases

		N	30-day mortality		Operative mortality	
Isolated cases		13390	209	1.6%	332	2.5%
Isolated, Initial, Elective		10847	82	0.8%	146	1.3%
	Off-pump Intended					
	Completed	5908	34	0.6%	55	0.9%
	Converted	161	4	2.5%	7	4.3%
	On-pump Intended					
	Arrest	2247	20	0.9%	35	1.6%
	Non-arrest, Vf	1622	18	1.1%	36	2.2%
	No information	909	6	0.7%	13	1.4%



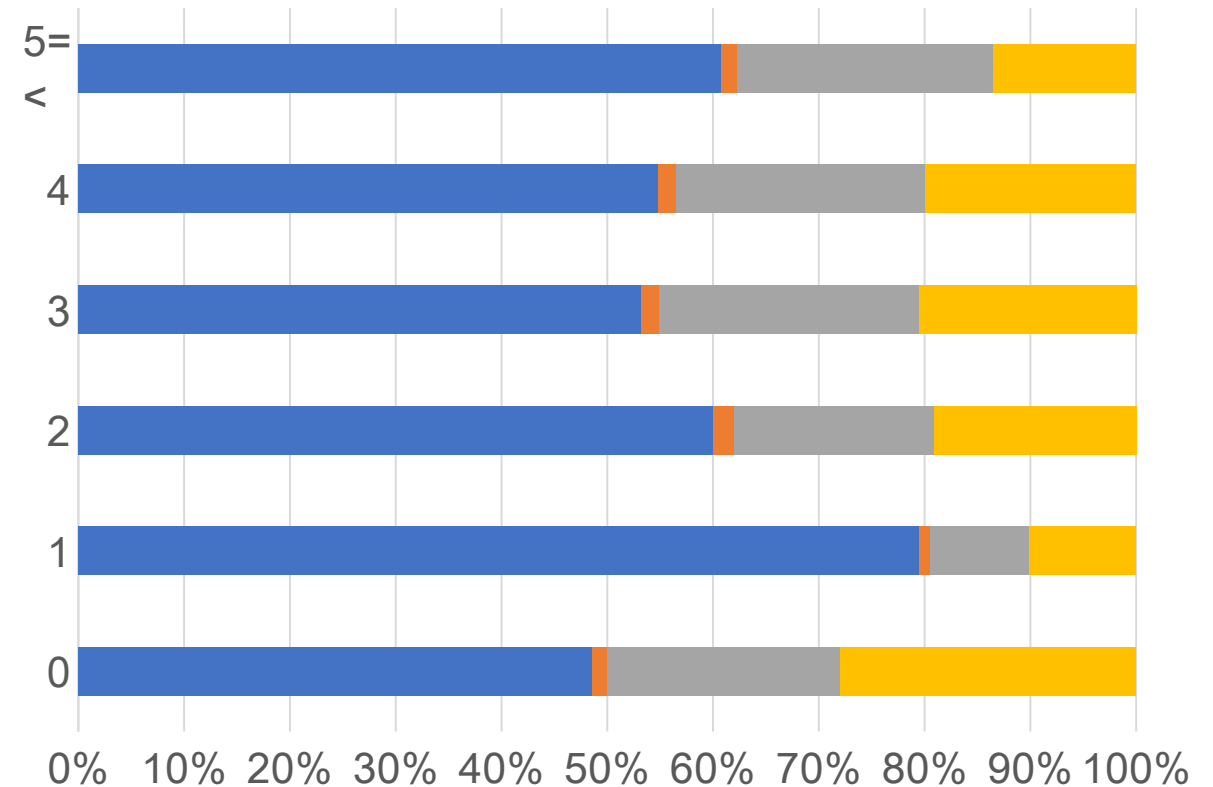
# Mortality by extent of CAD(%)



# 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
0	33	1	15	19
1	631	8	75	80
2	1677	53	528	533
3	2461	82	1134	949
4	1539	46	663	558
5=<	699	17	279	155

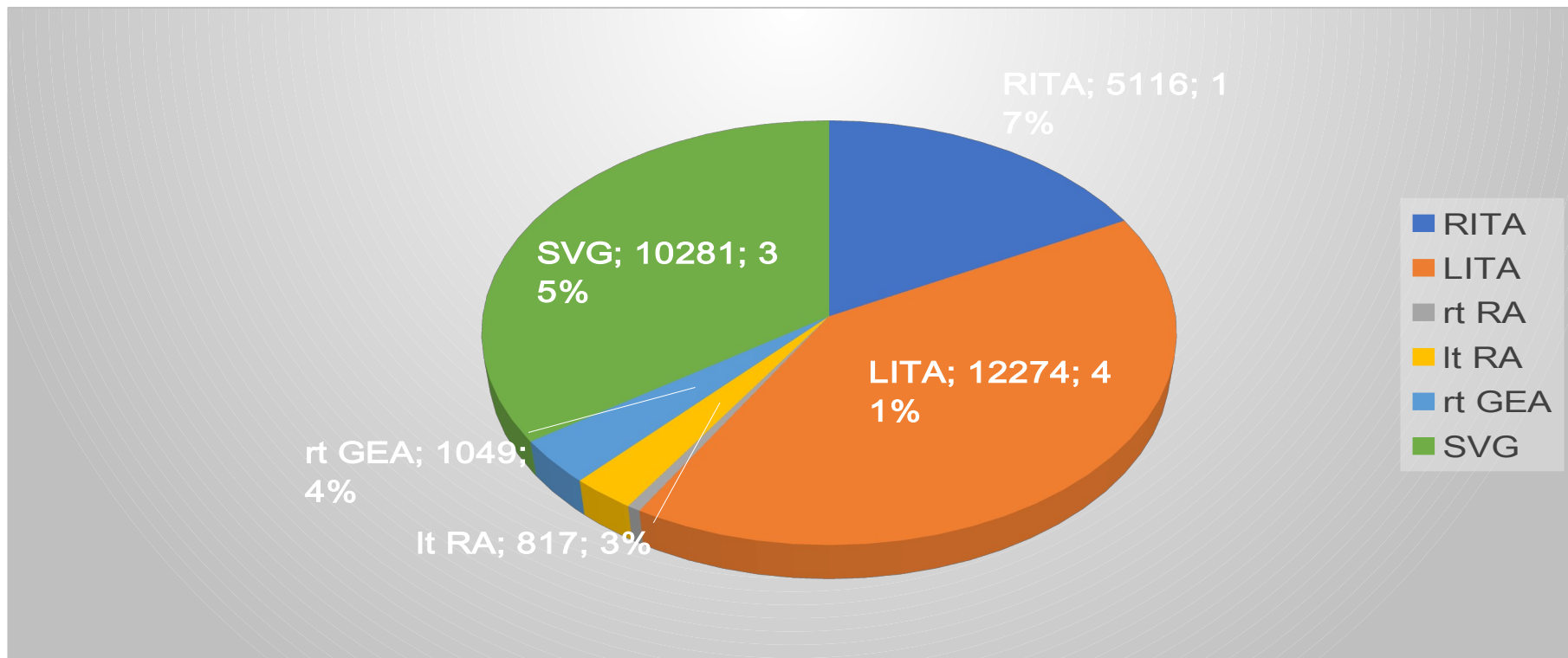


■ off-pump completed    ■ off-pump converted  
■ on-pump arrest    ■ on-pump beating

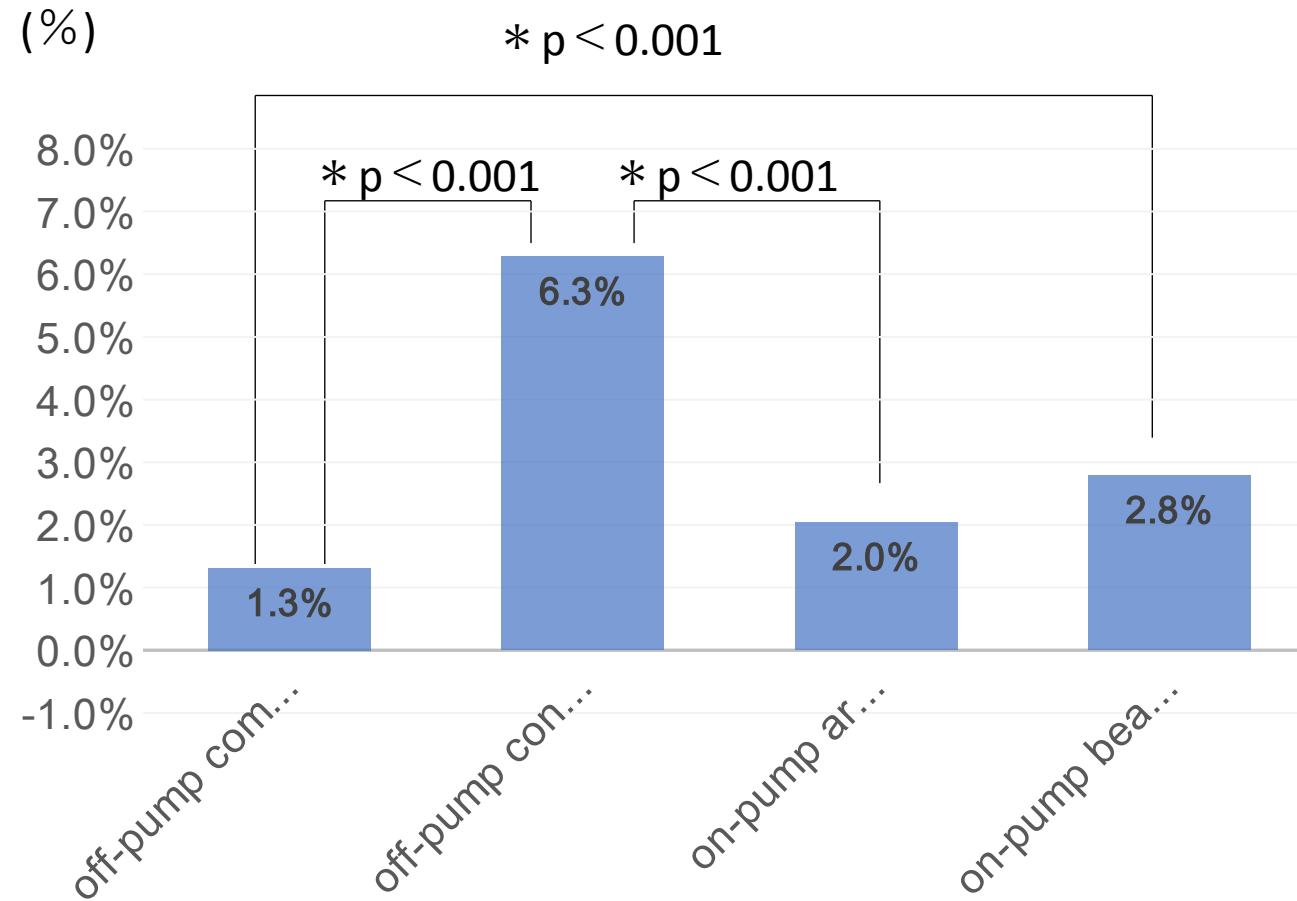




# Graft selection



# Stroke rate according to procedures



# LV failure due to AMI

	<b>N</b>	<b>30-day mortality</b>	<b>Operative mortality</b>
<b>Papillary muscle rupture</b>	<b>63</b>	<b>23 (36.5%)</b>	<b>24 (38.1%)</b>
<b>LV free wall rupture</b>	<b>241</b>		
<b>Blow-out type</b>	<b>83</b>	<b>44 (53.0%)</b>	<b>54 (65.1%)</b>
<b>Oozing type</b>	<b>158</b>	<b>31 (19.6%)</b>	<b>36 (22.8%)</b>
<b>LV aneurysm</b>	<b>23</b>	<b>2 (8.7%)</b>	<b>2 (8.7%)</b>

# Procedures to ischemic MR

		N	30-day mortality	Operative mortality
<b>Ischemic MR</b>		<b>485</b>	<b>30 (6.2%)</b>	<b>42 (8.8%)</b>
	<b>Mitral valve plasty</b>	<b>309</b>	<b>11 (3.6%)</b>	<b>18 (5.8%)</b>
	<b>+LV procedure</b>	<b>26</b>	<b>1 (3.8%)</b>	<b>1 (3.8%)</b>
	<b>Mitral valve replacement</b>	<b>176</b>	<b>19 (10.8%)</b>	<b>24 (13.6%)</b>
	<b>+LV procedure</b>	<b>10</b>	<b>0 (0%)</b>	<b>0 (0%)</b>