

Coronary artery surgery results 2008, in Japan

**The President of Japanese Association
for Coronary Artery Surgery (JACAS)**

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Official home-page of JACAS : <http://www.jacas.org>

Coronary artery bypass grafting (CABG), 2008

Total cases : 14,035

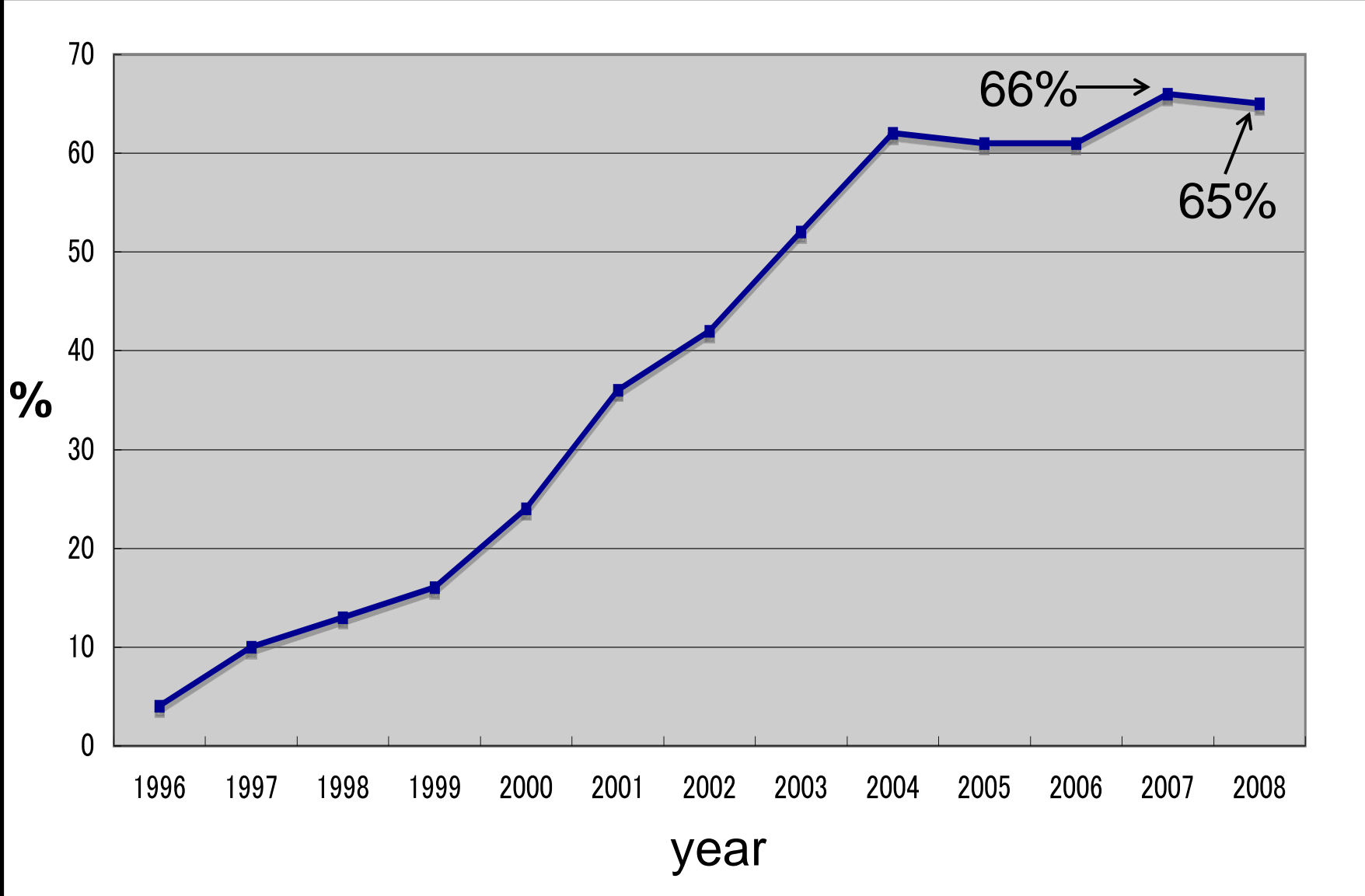
Isolated CABG : 11,003

Concomitant CABG : 2,982

Isolated CABG

Initial elective	: 9,301	Extra initial elective	: 1,752	
Off-pump	: 6,089	Off-pump	:	
940	On-pump	: 3,212	On-pump	:
812				
	(Off-pump rate : 65%)		(Off-pump rate : 54%)	
	(previous year : 66%)		(previous year : 53%)	

Changes in OPCAB frequency rate of initial elective CABG



Total cases of initial elective :9,301(100%)

On-pump (cardiac arrest)	:2,438(26.2%)
On-pump (cardiac beating)	: 774(8.3%)
Off-pump (total cases)	:6,089(65.5%)
Off-pump (complete)	:5,940
On-pump (convert)	: 159

OPCAB complete rate :97.6%

Off to on-pump convert rate : 2.4%
(previous year:2.9%)

Mortality of isolated CABG:1.46%
(previous year:1.78%)

Mortality of initial elective CABG:0.89%
(previous
year:0.97%)

On-pump (cardiac arrest) :0.90%

On-pump (cardiac beating) :1.81%

Off-pump (total cases) :0.64%

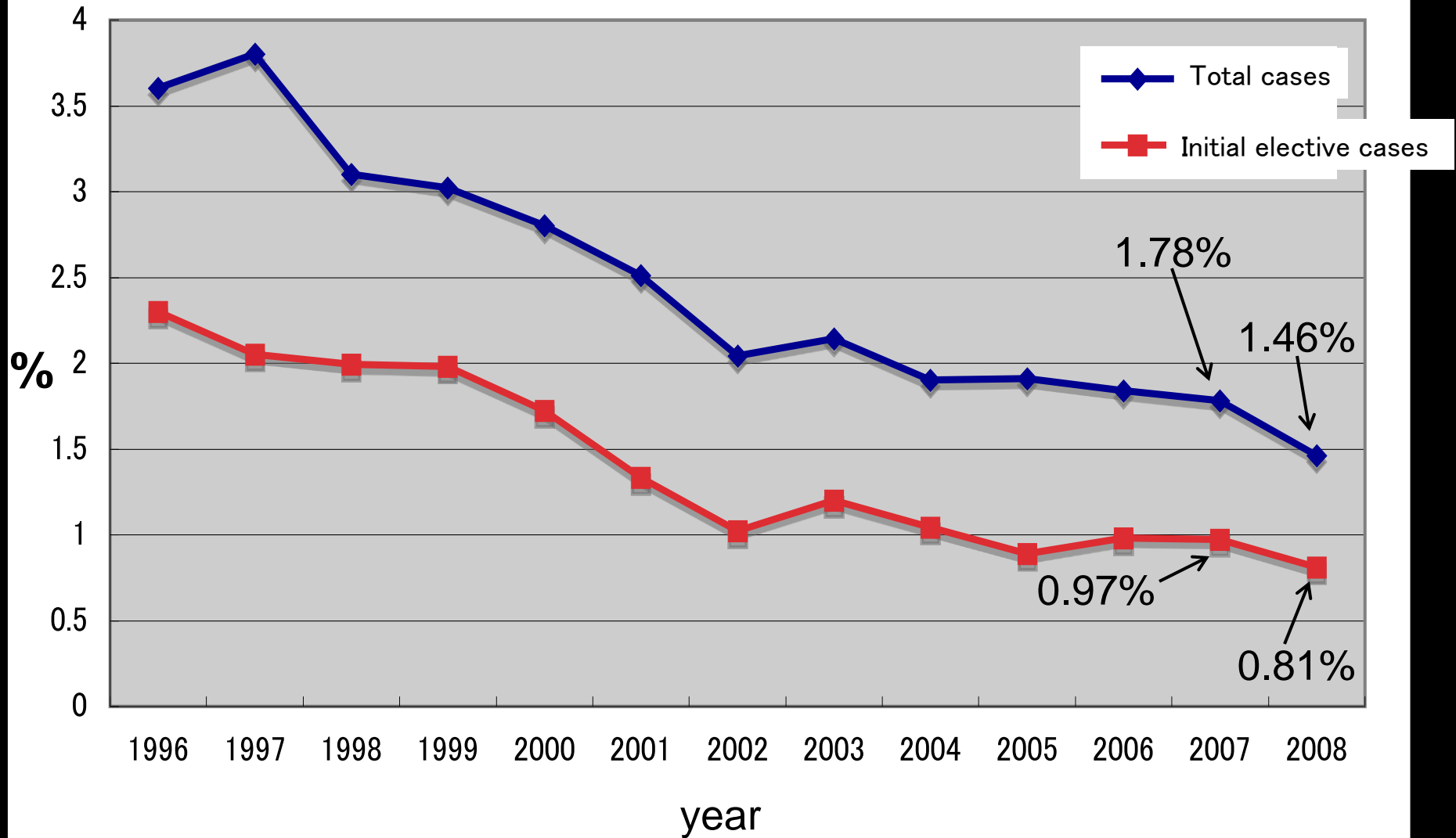
Off-pump (complete) :**0.62%**

(previous year:0.65%)

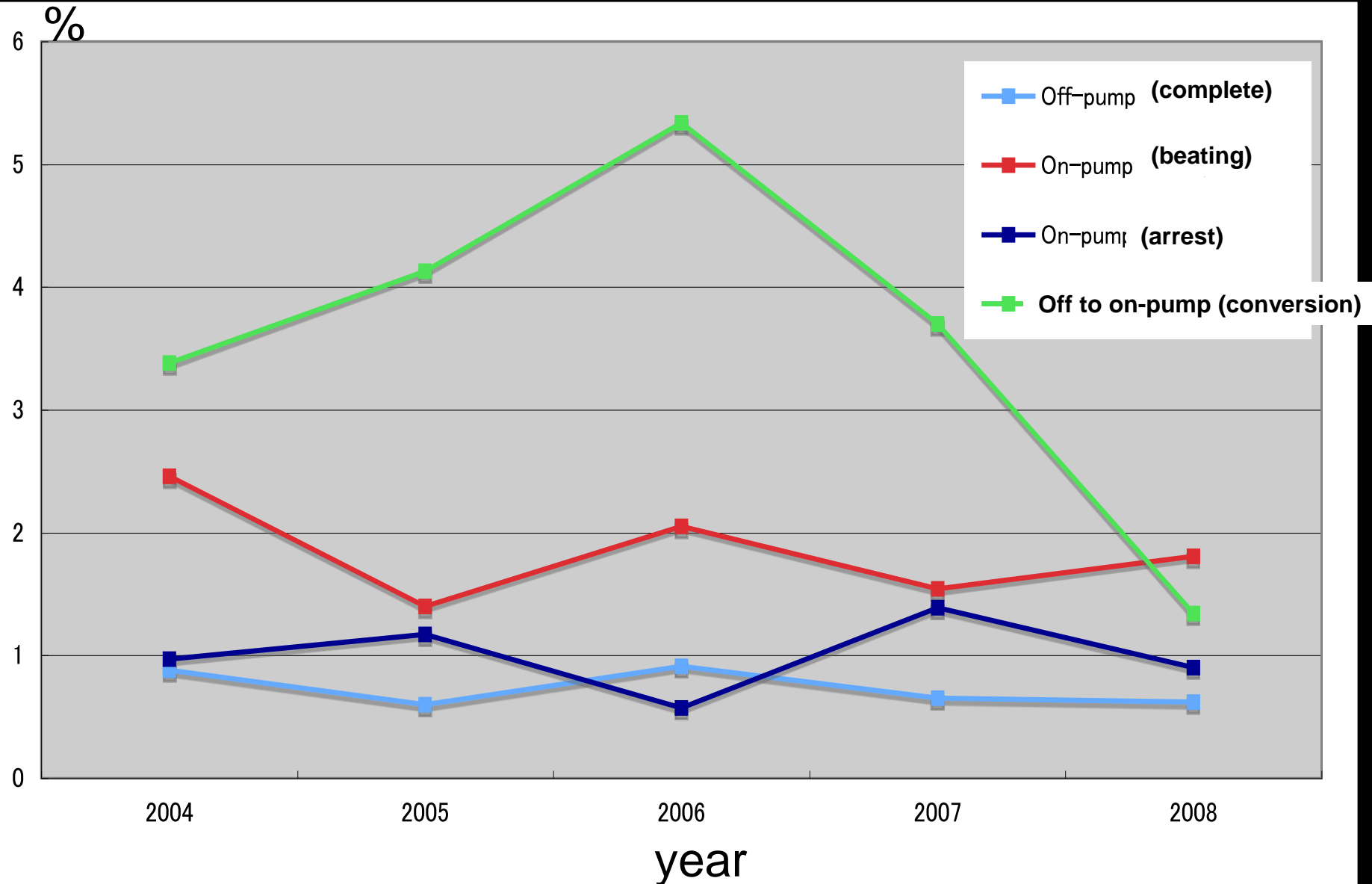
On to on-pump (convert) :**1.34%**

(previous year:3.70%)

Changes in mortality of CABG

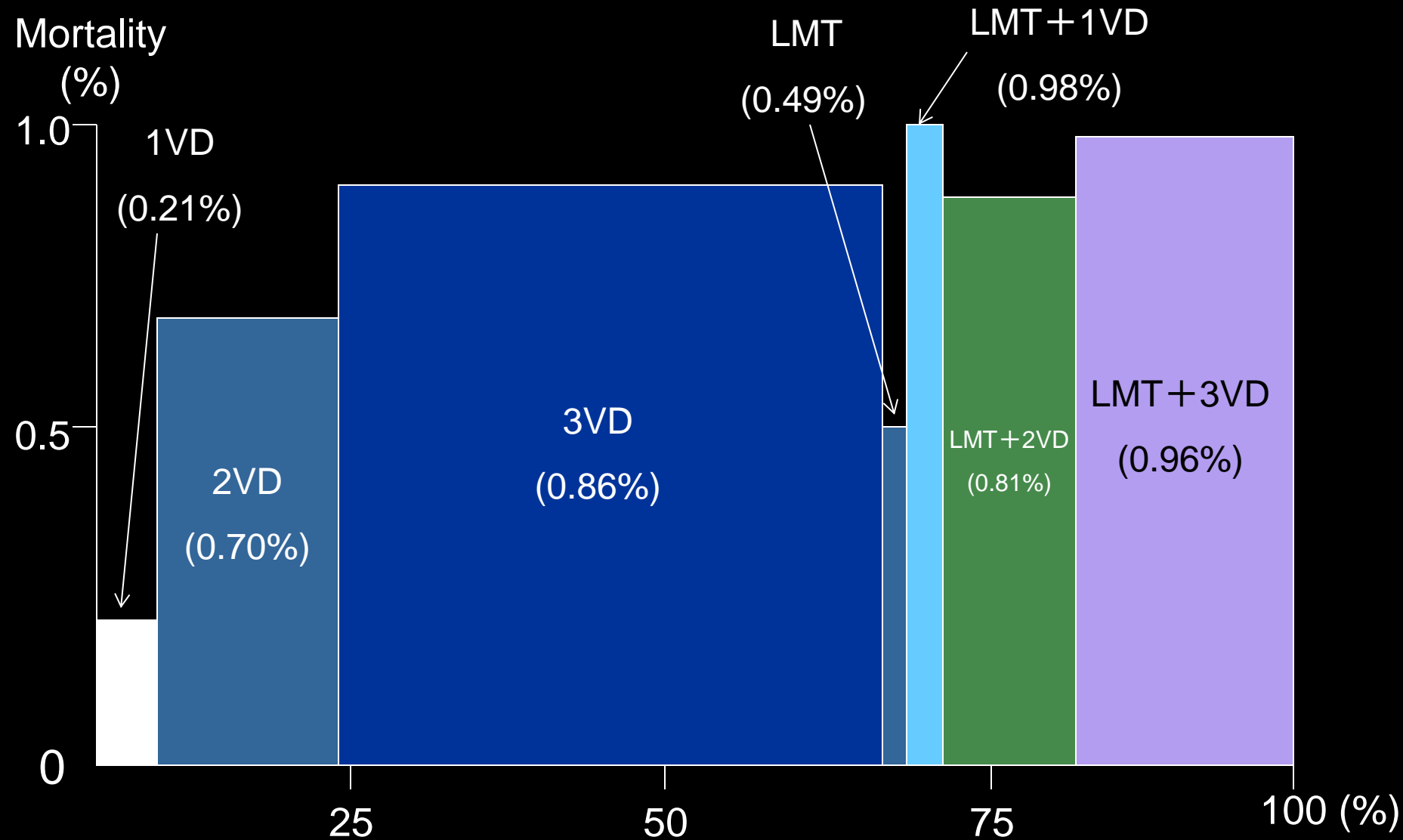


Changes of mortality for procedures (Initial elective CABG)



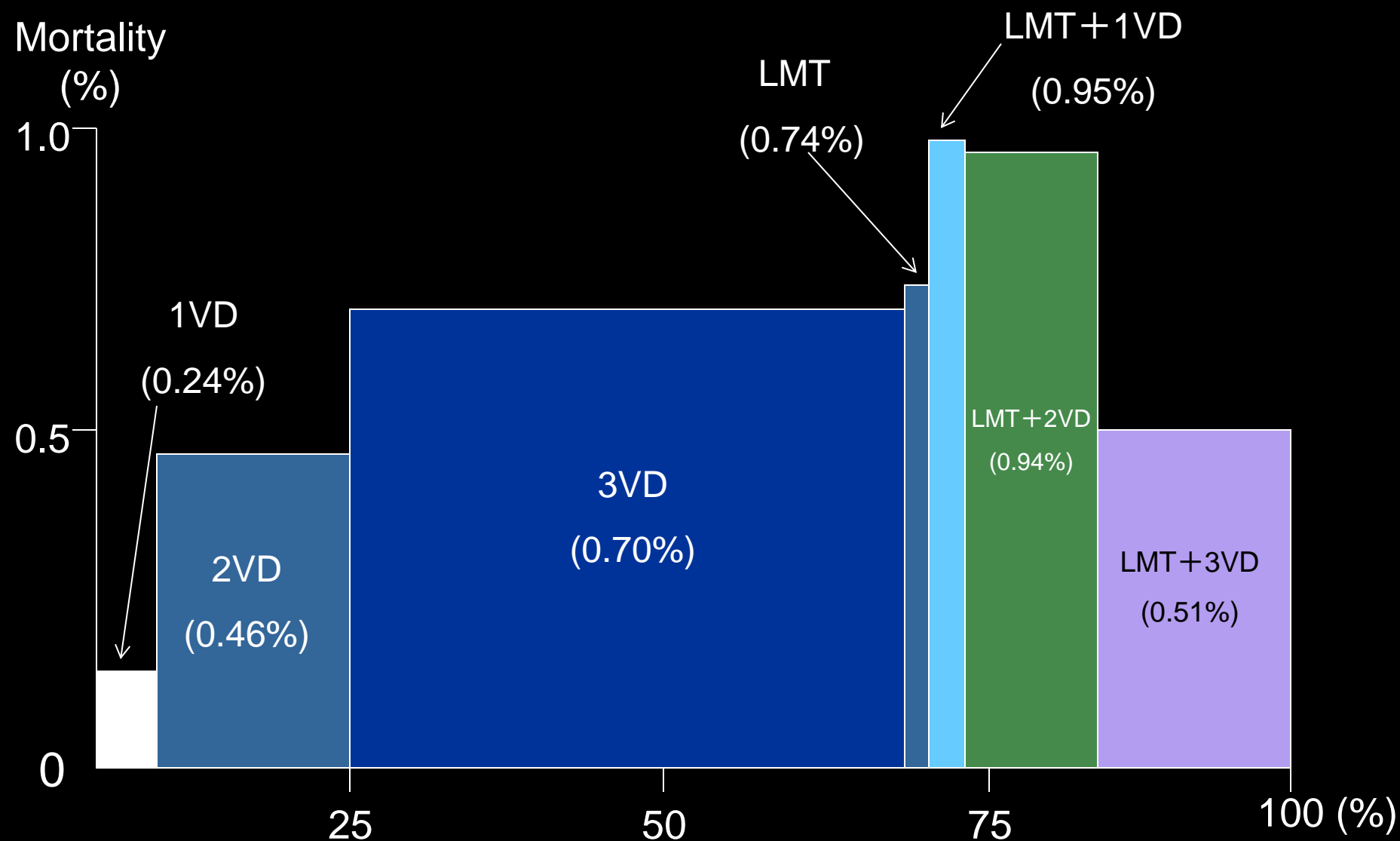
Surgical results according to diseased vessels

(Initial elective cases : 9,301, mortality:0.81%)



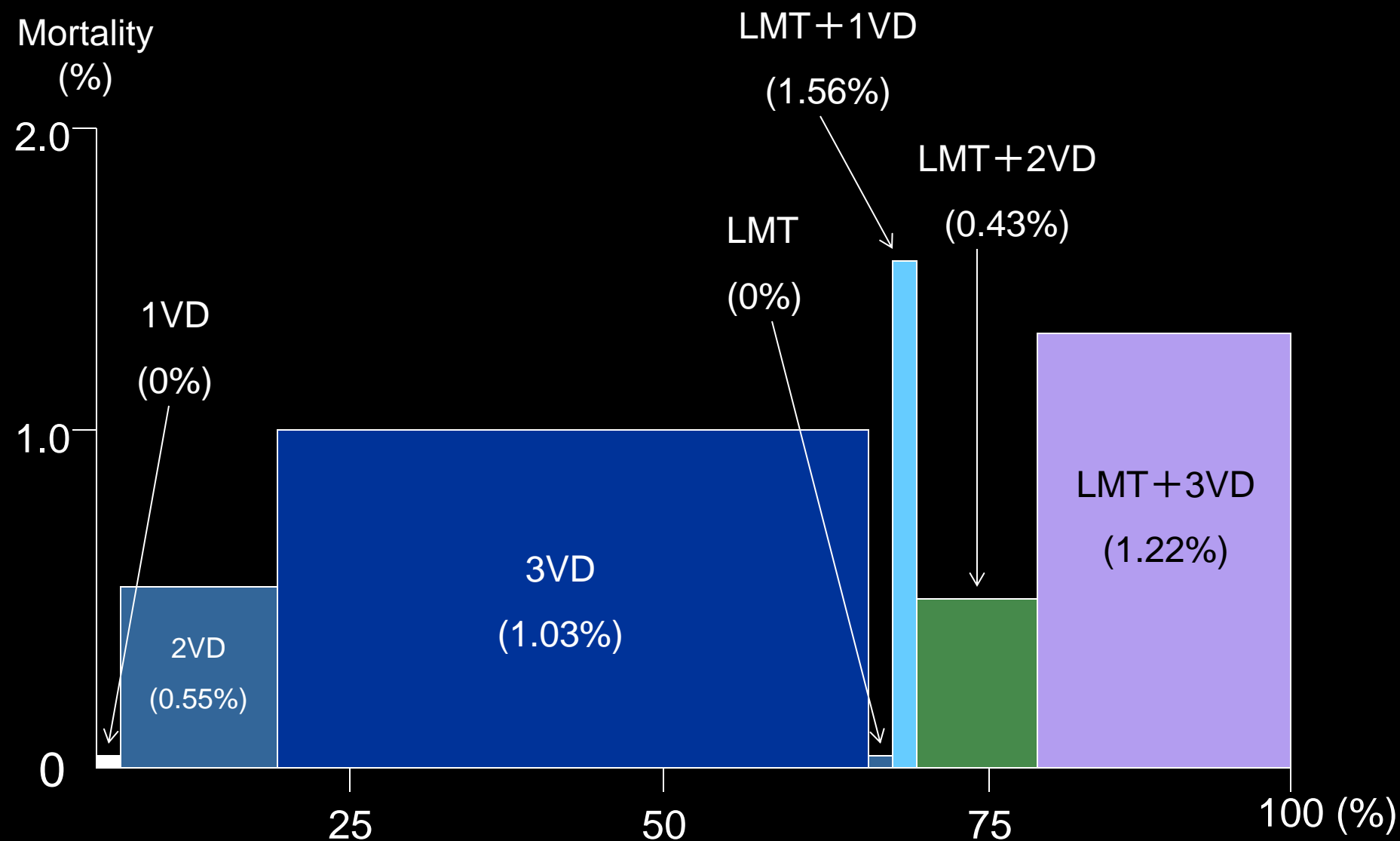
Surgical results according to diseased vessels

(Initial elective off-pump (complete): 5,940, mortality:0.62%)



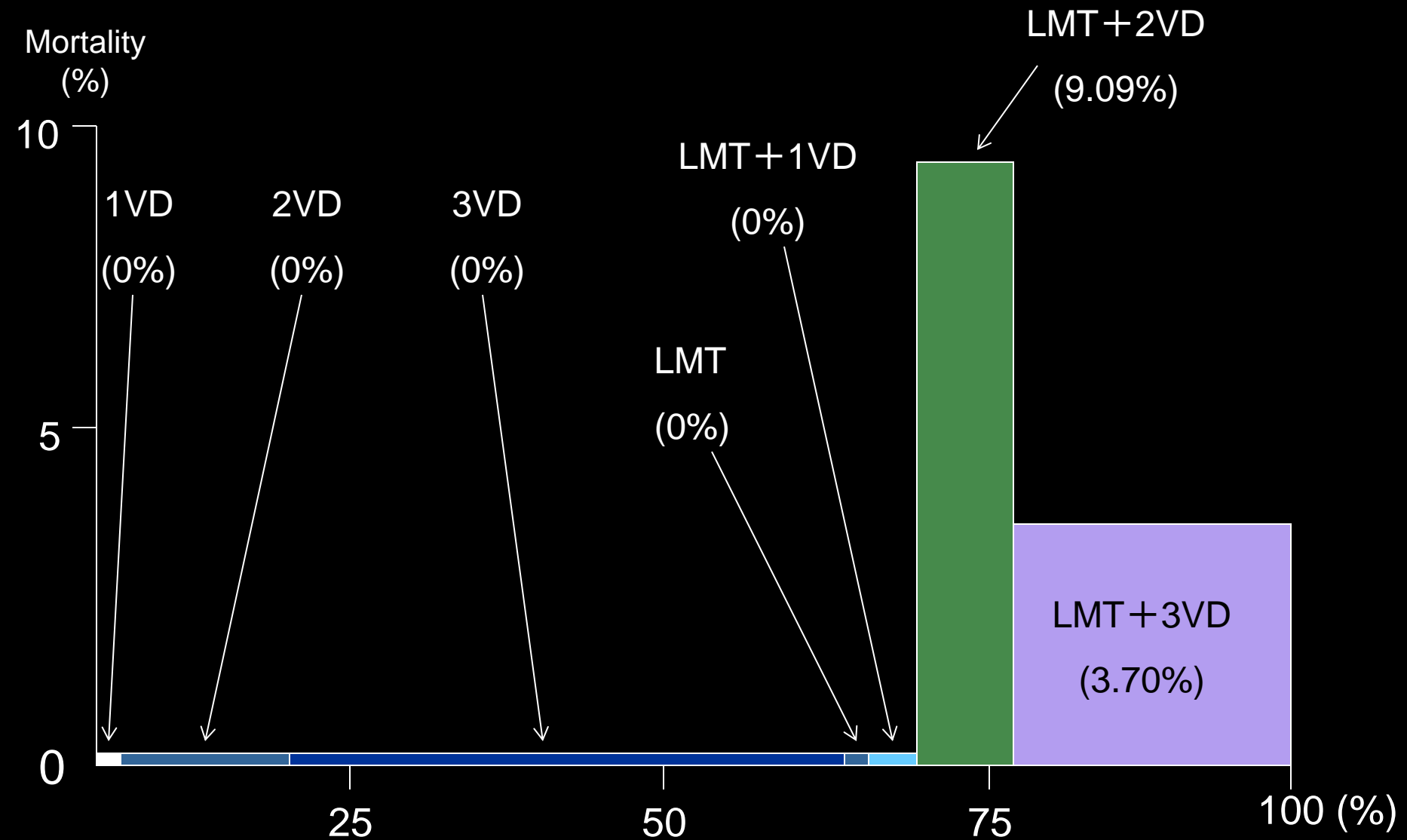
Surgical results according to diseased vessels

(Initial elective on-pump (arrest): 2,483, mortality:0.90%)



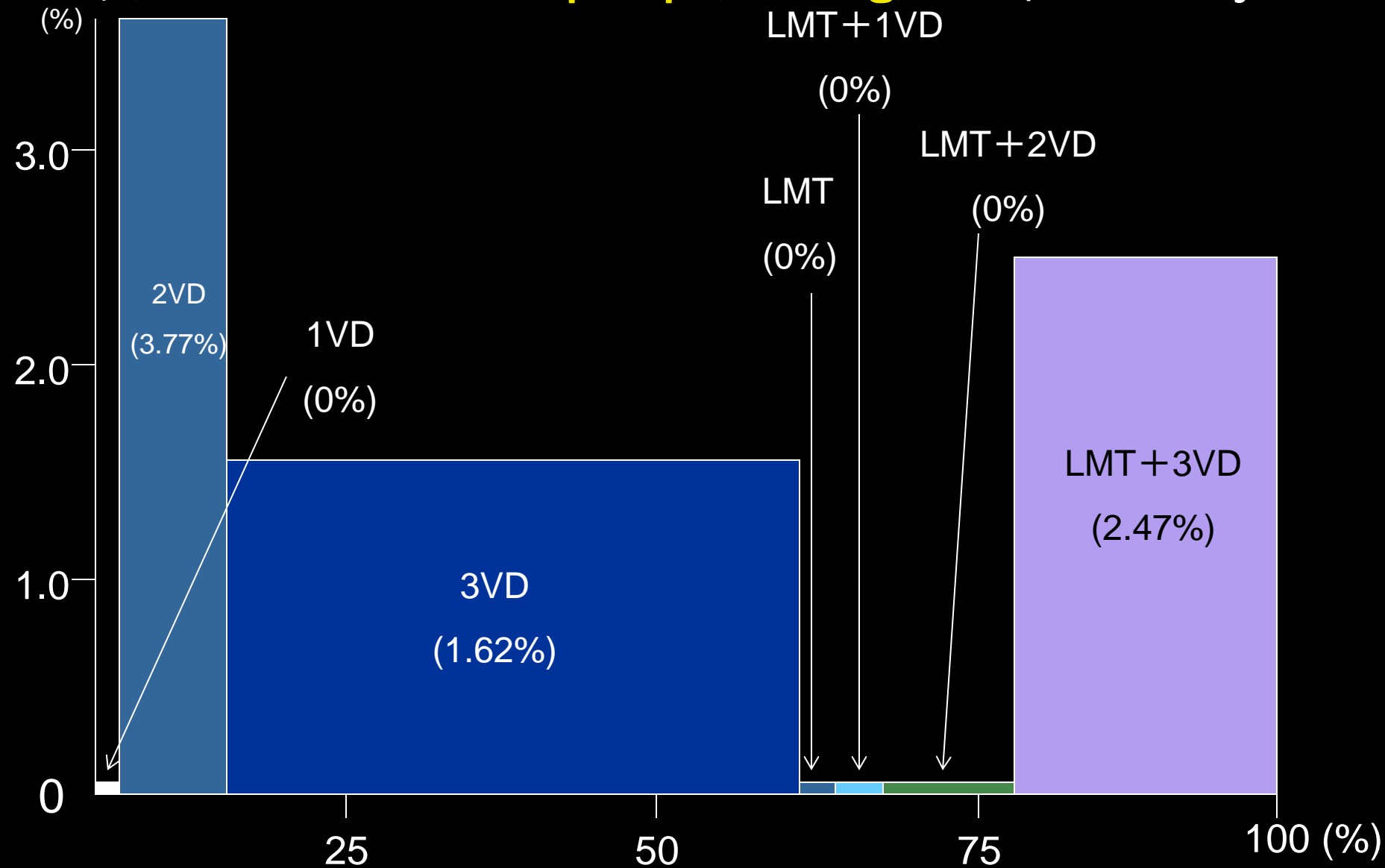
Surgical results according to diseased vessels

(Initial elective off to on-pump (conversion): 149, mortality: 1.34%)



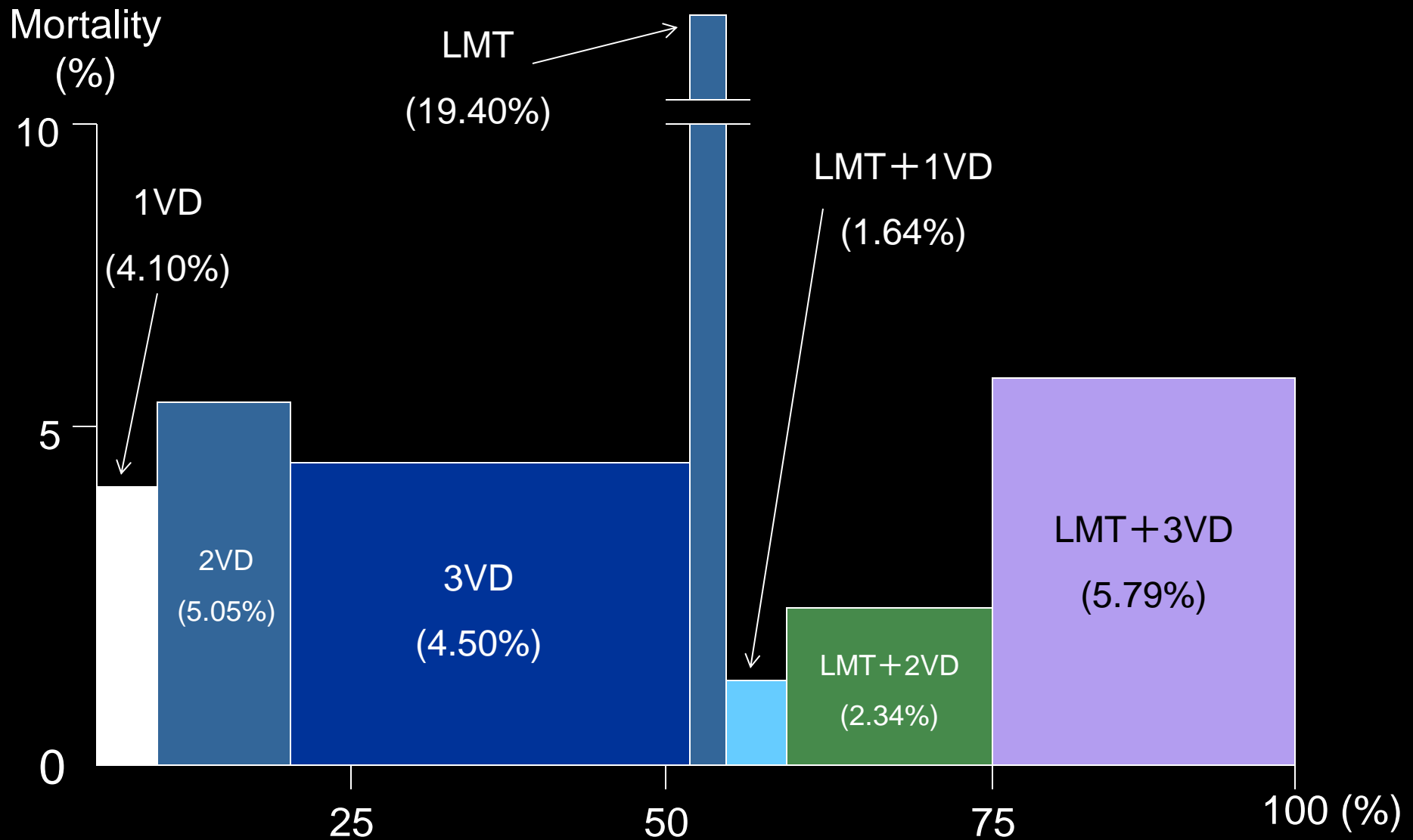
Surgical results according to diseased vessels

Mortality (Initial elective on-pump (beating)): 774, mortality: 1.81%



Surgical results according to diseased vessels

(Extra initial elective cases: 1,752, mortality: 4.91%)



Surgical results according to procedures

(**Except initial elective cases** : 1,752, mortality:4.91%)

Mortality
(%)

10

5

0

Off pump(total)
2.55%

On pump
(beating)
10.76%

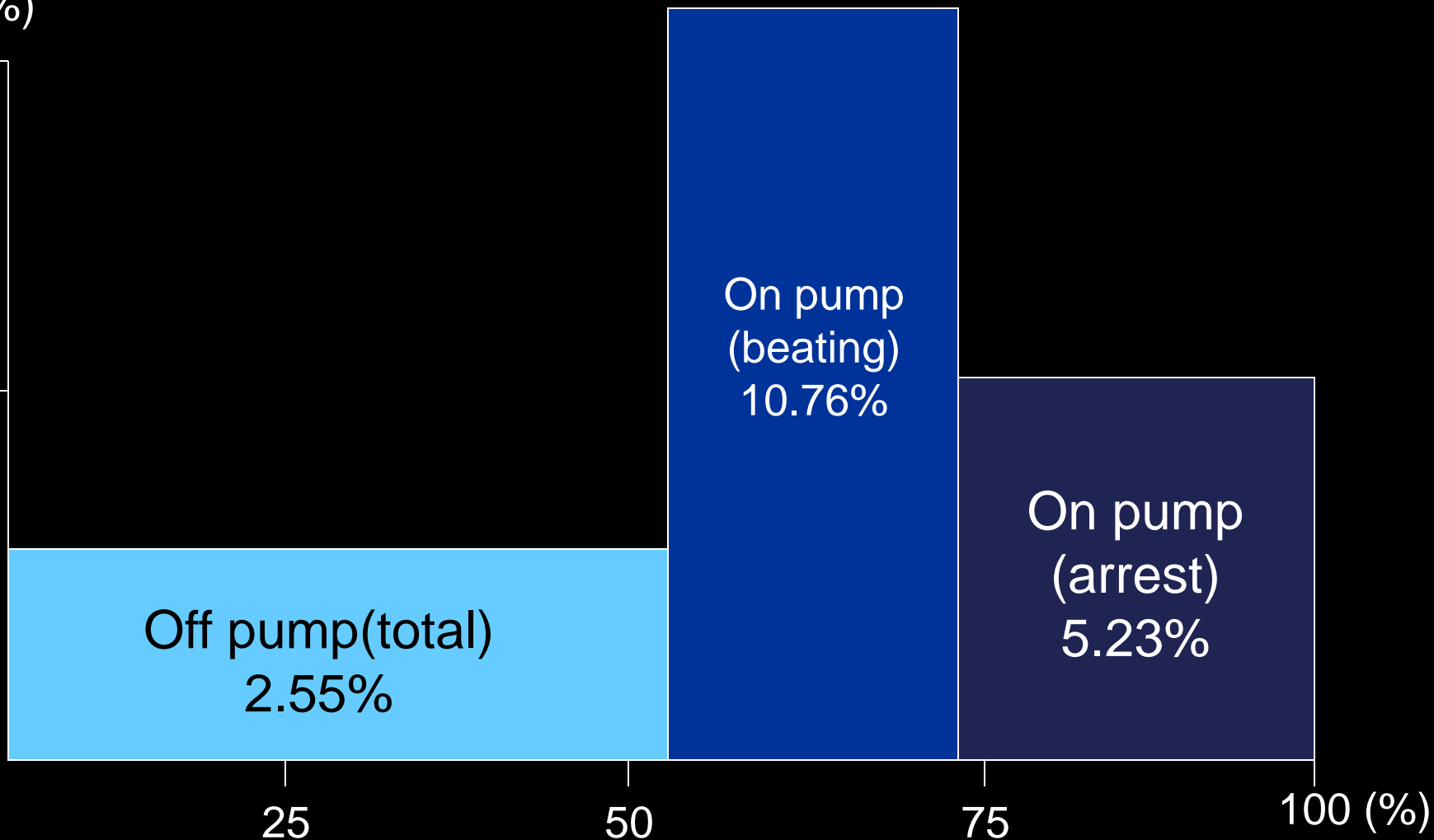
On pump
(arrest)
5.23%

25

50

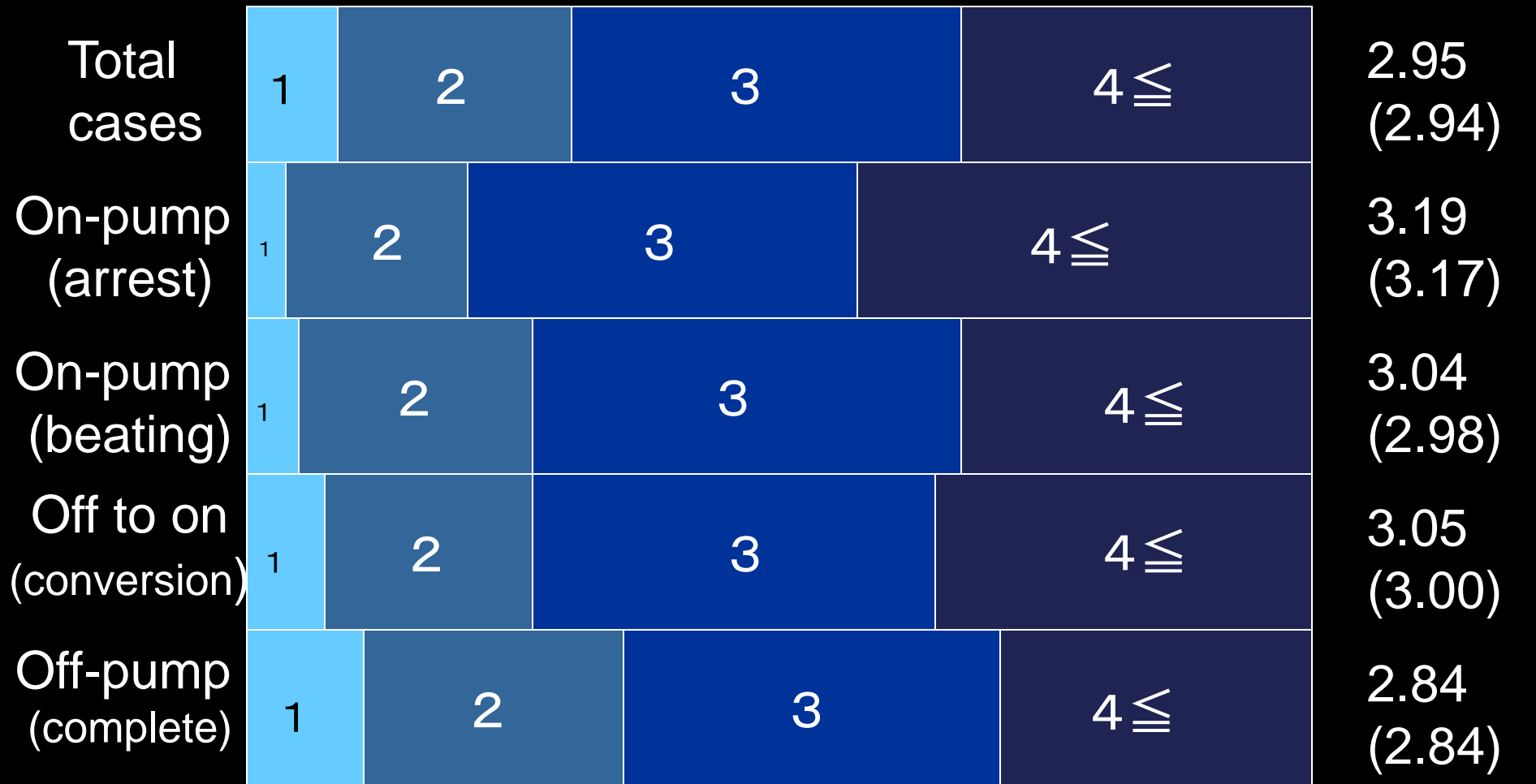
75

100 (%)

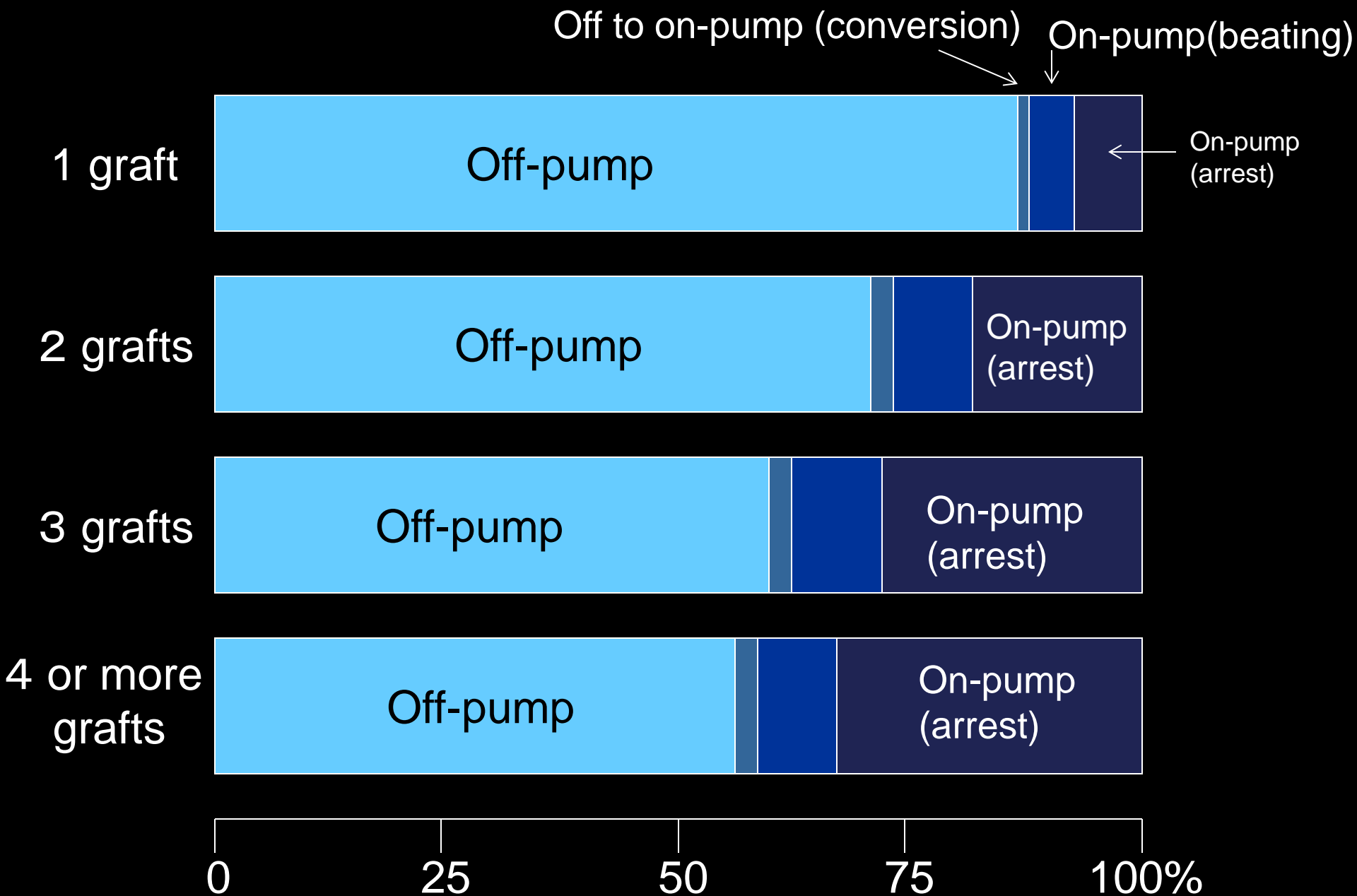


Number of grafts according to surgical procedures

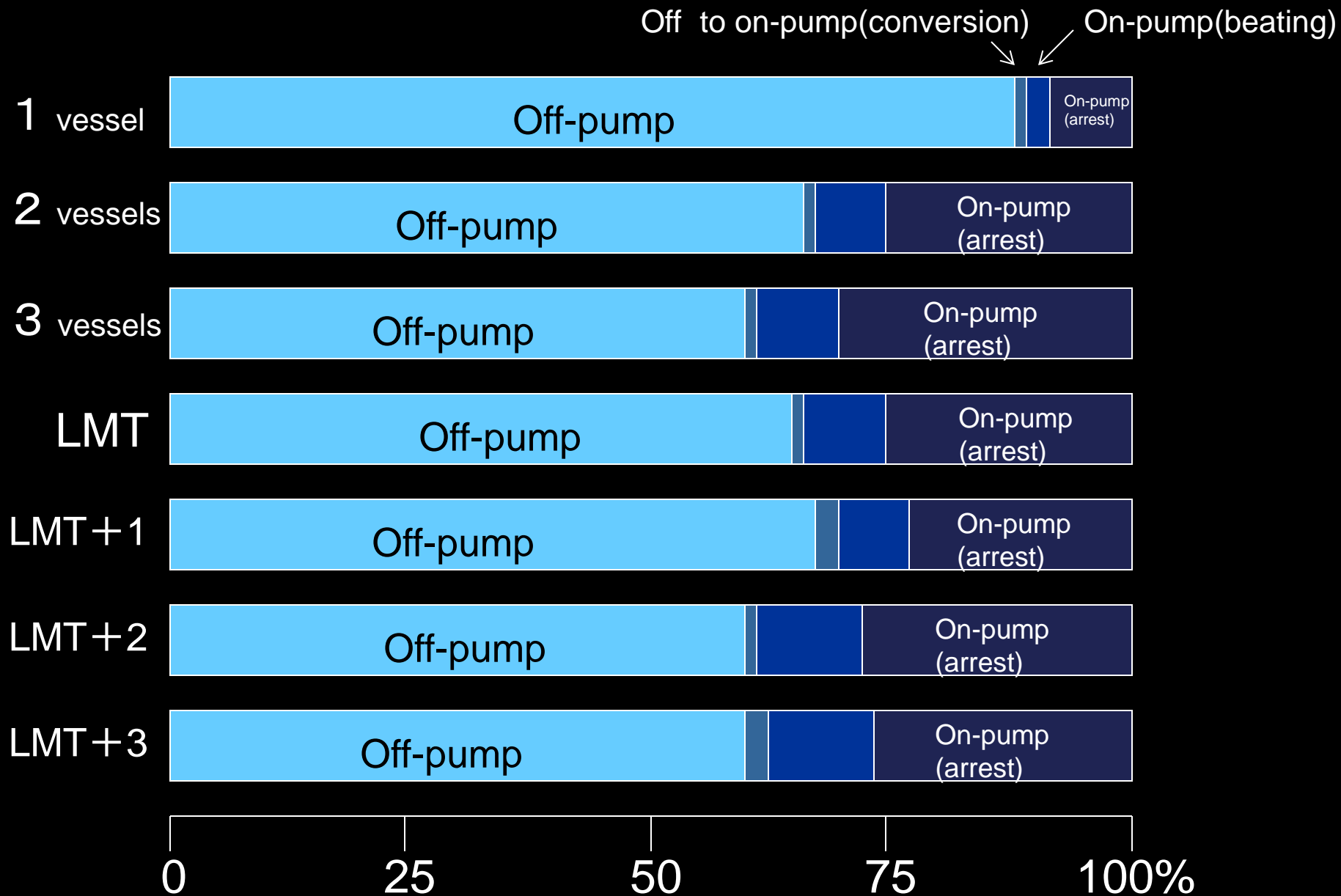
mean grafts
(previous)



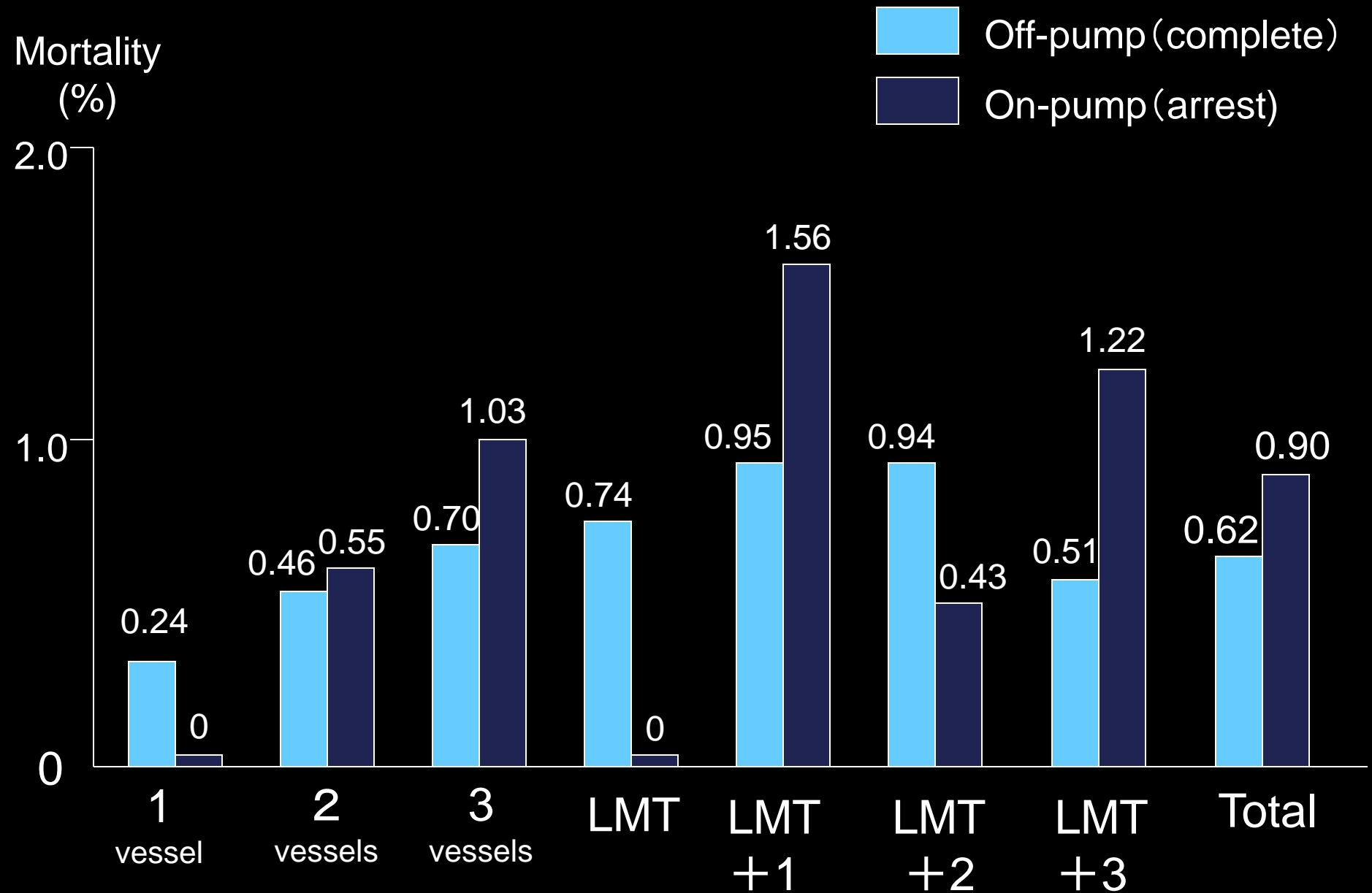
Surgical procedures according to number of grafts



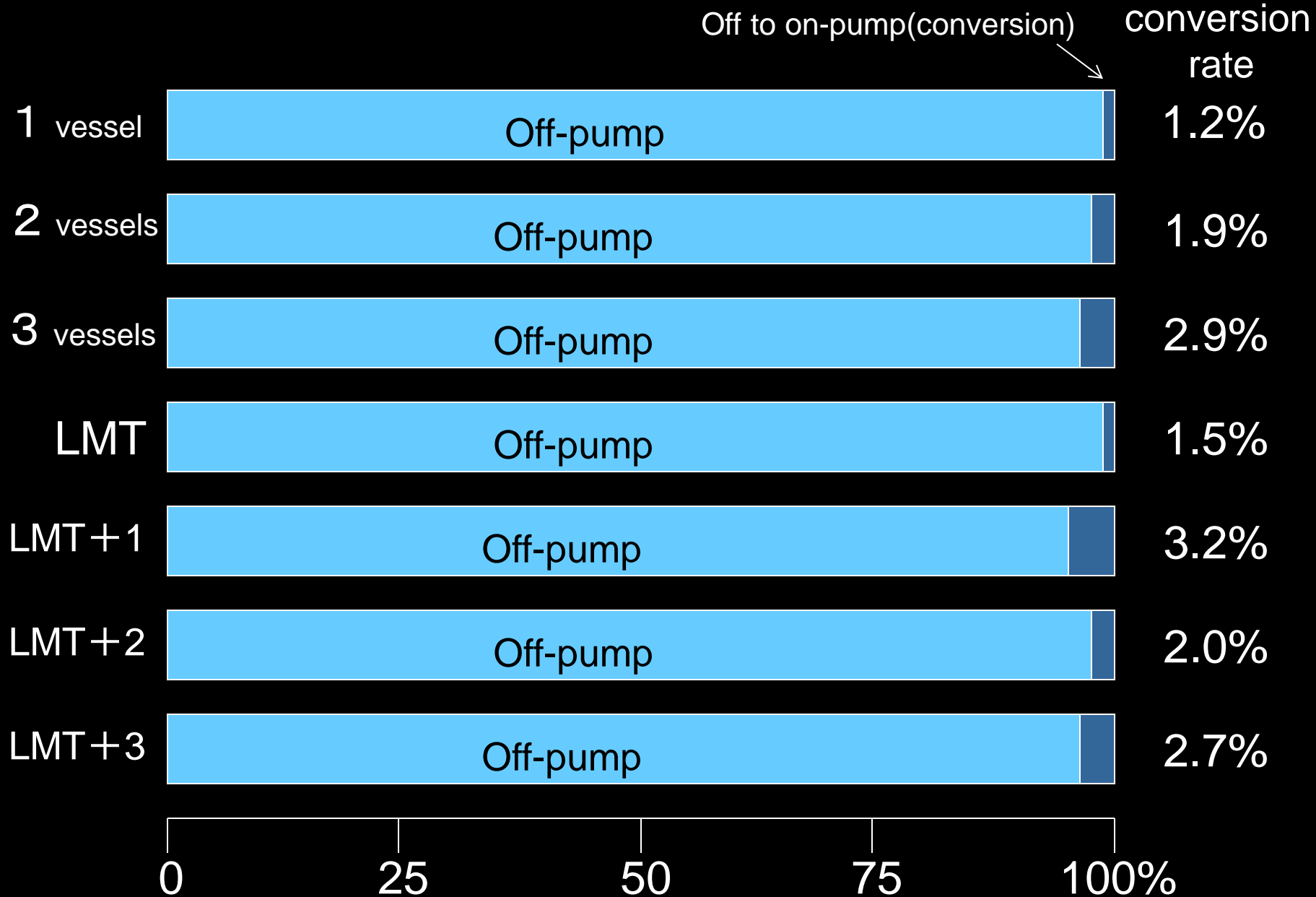
Surgical procedures according to diseased vessels



Surgical results of off-pump(complete) vs. on-pump(arrest) according to diseased vessels

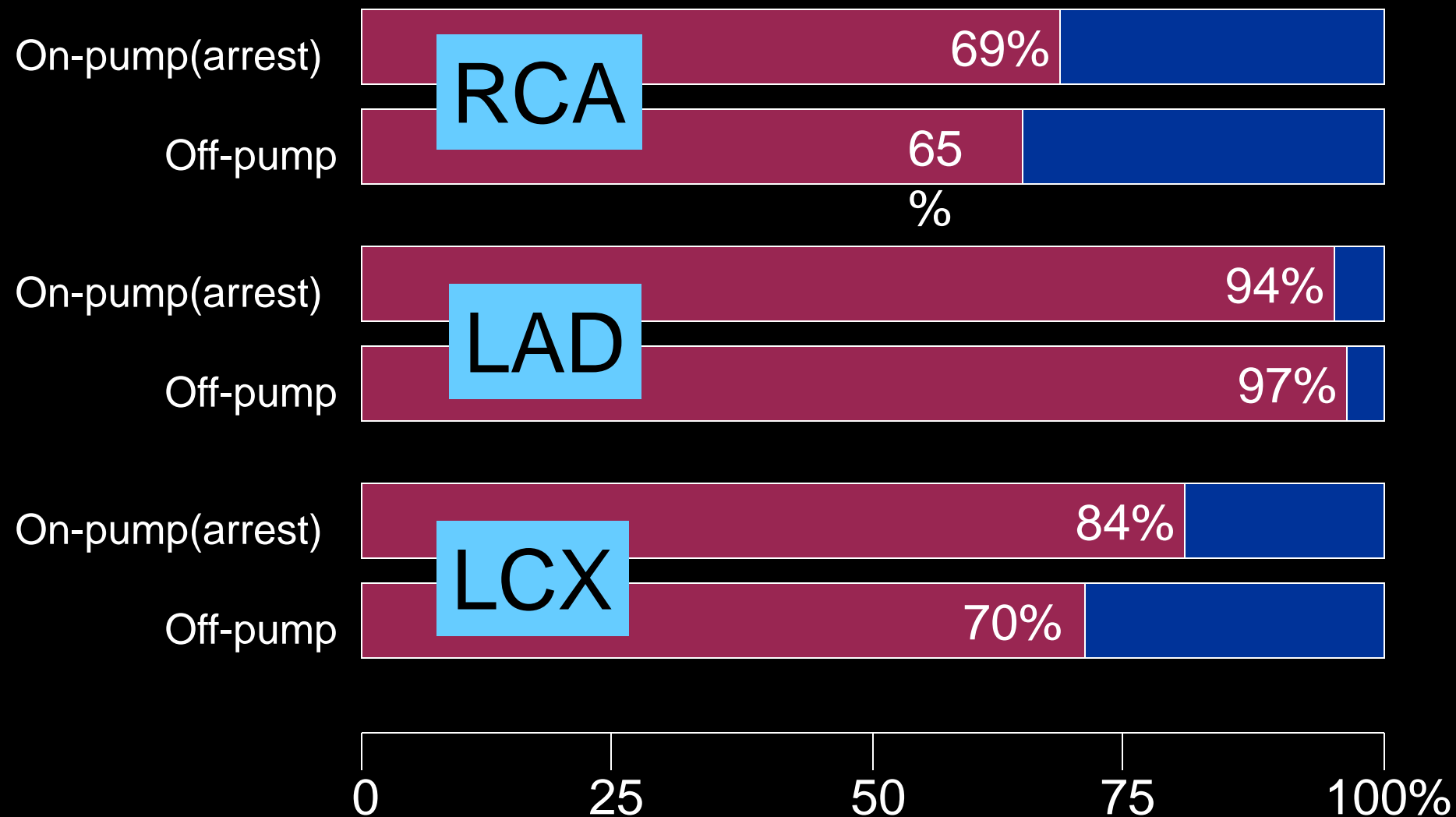


Off to on-pump conversion rate according to diseased vessels (total:2.4%)

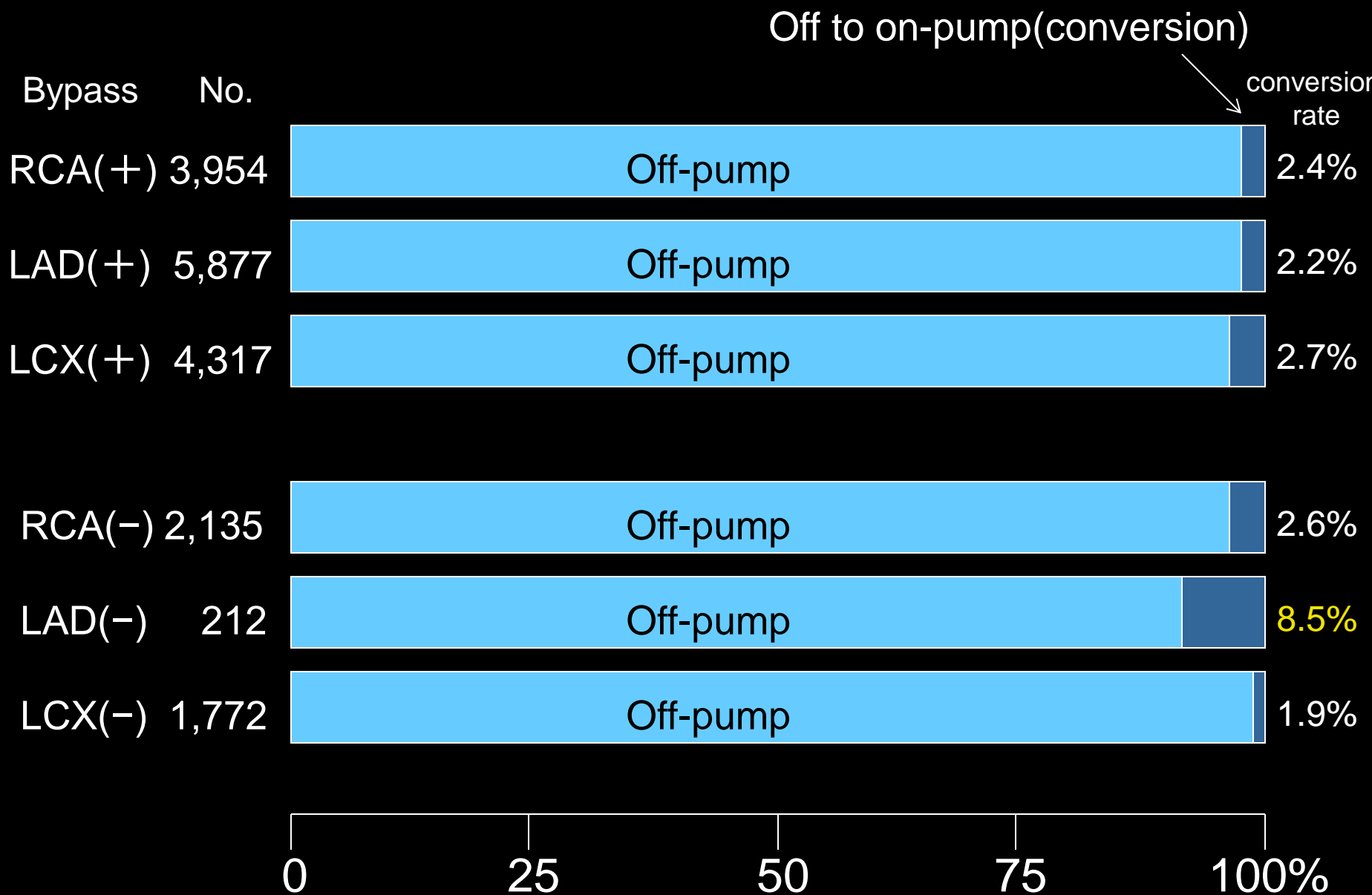


On-pump (arrest) vs. off-pump (Initial elective CABG)

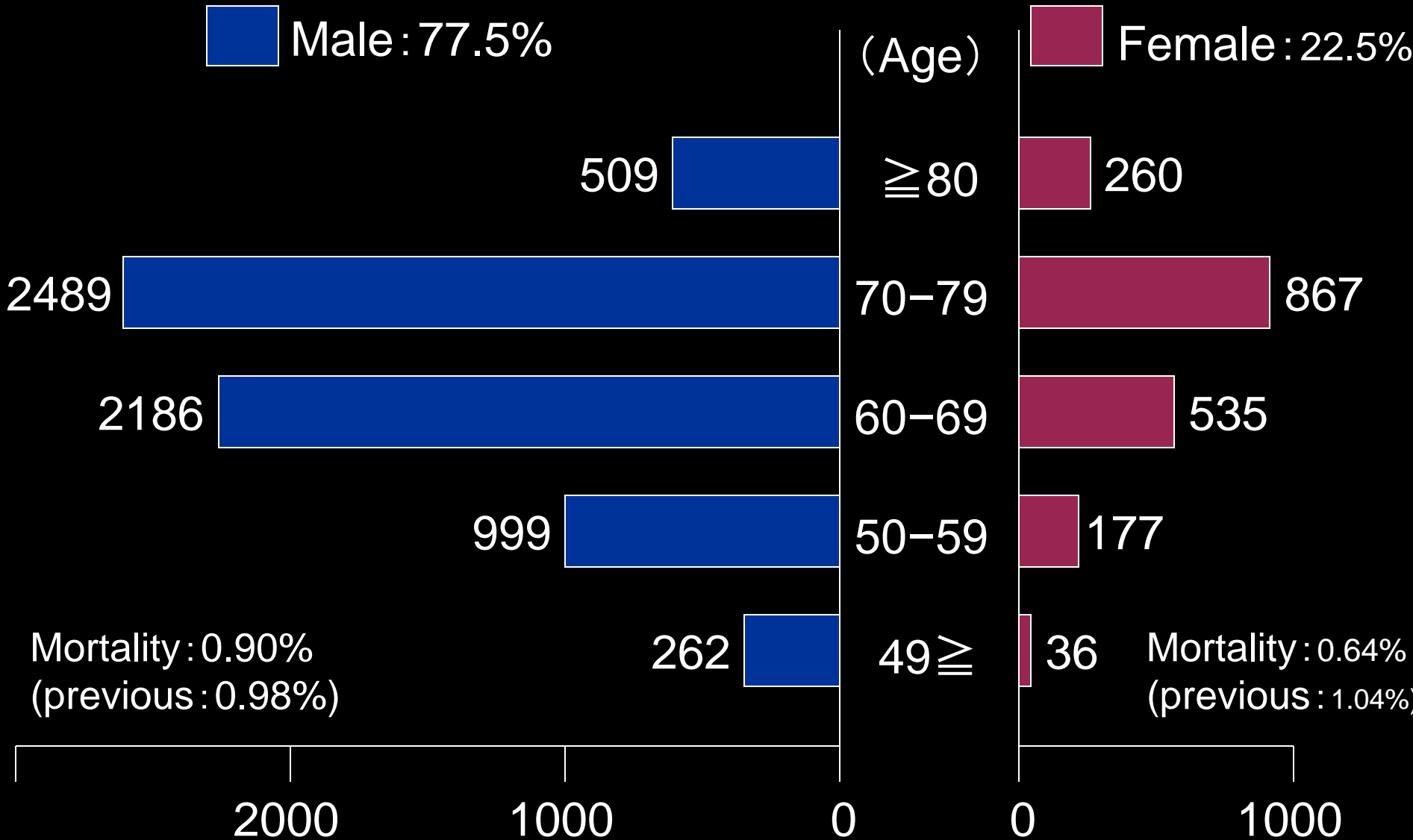
bypass+
bypass-



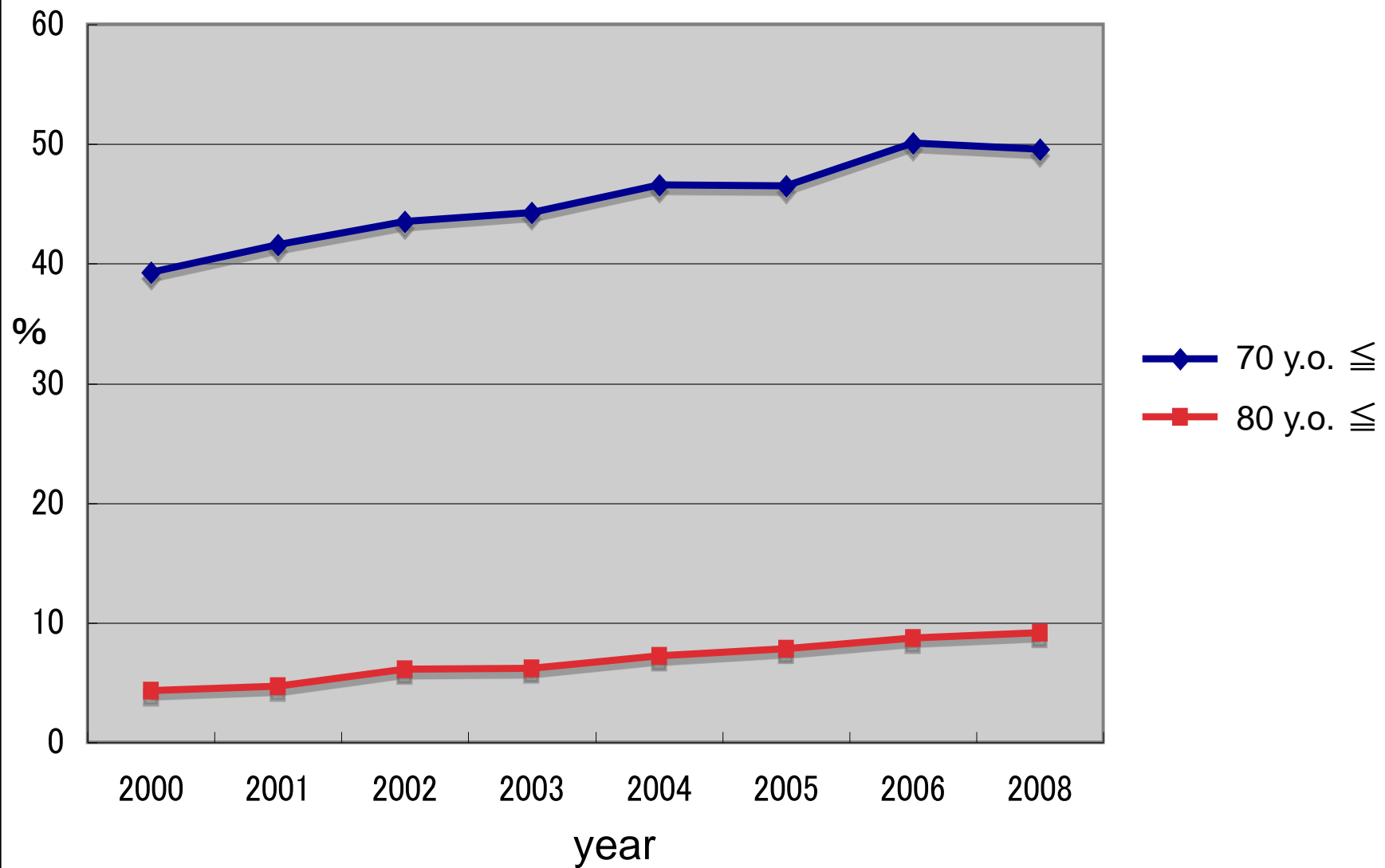
Off-pump vs. off to on-pump conversion (Initial elective CABG)



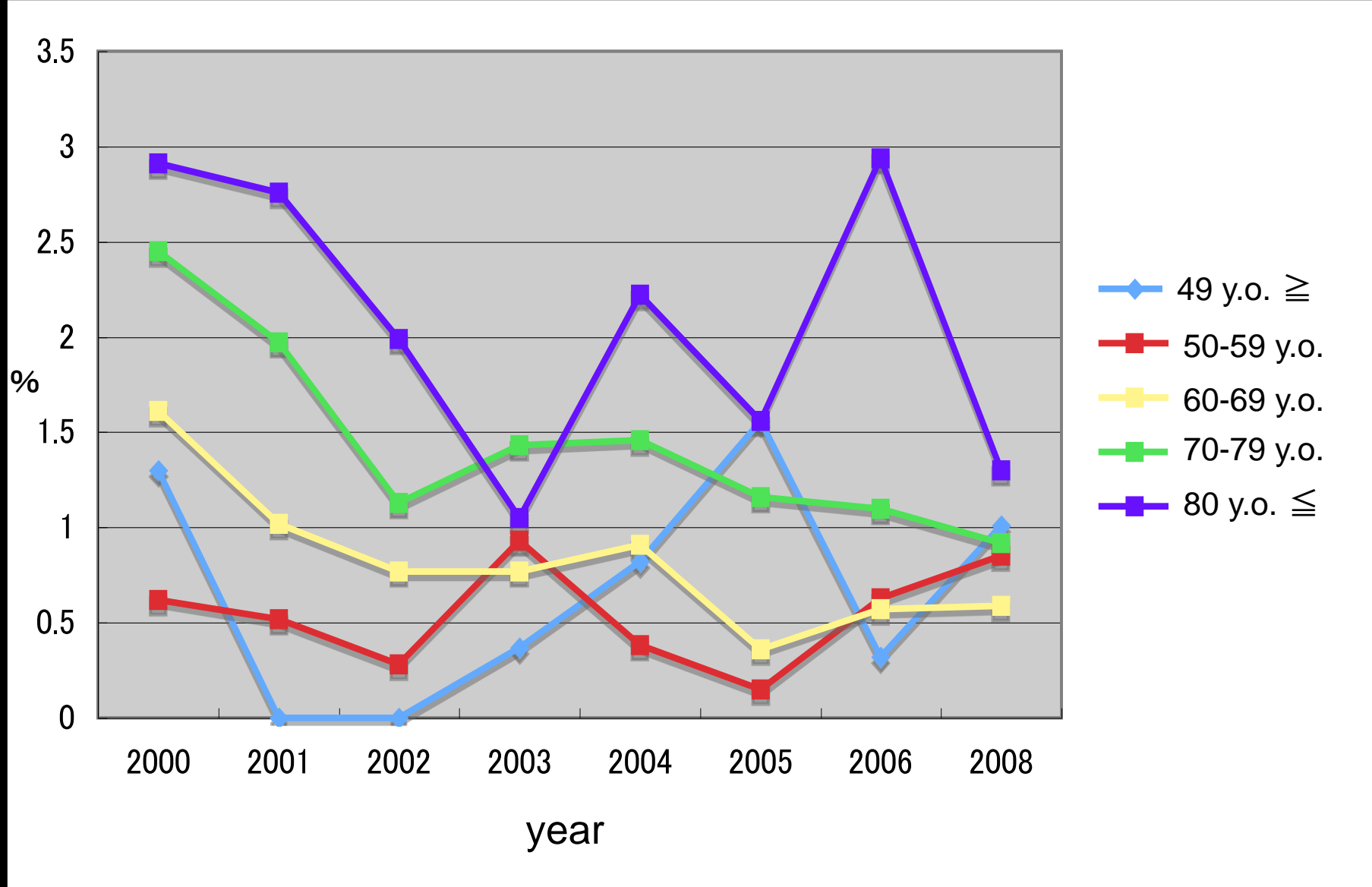
Age distribution (Initial elective cases)



Changes in elderly patients (Initial elective cases)

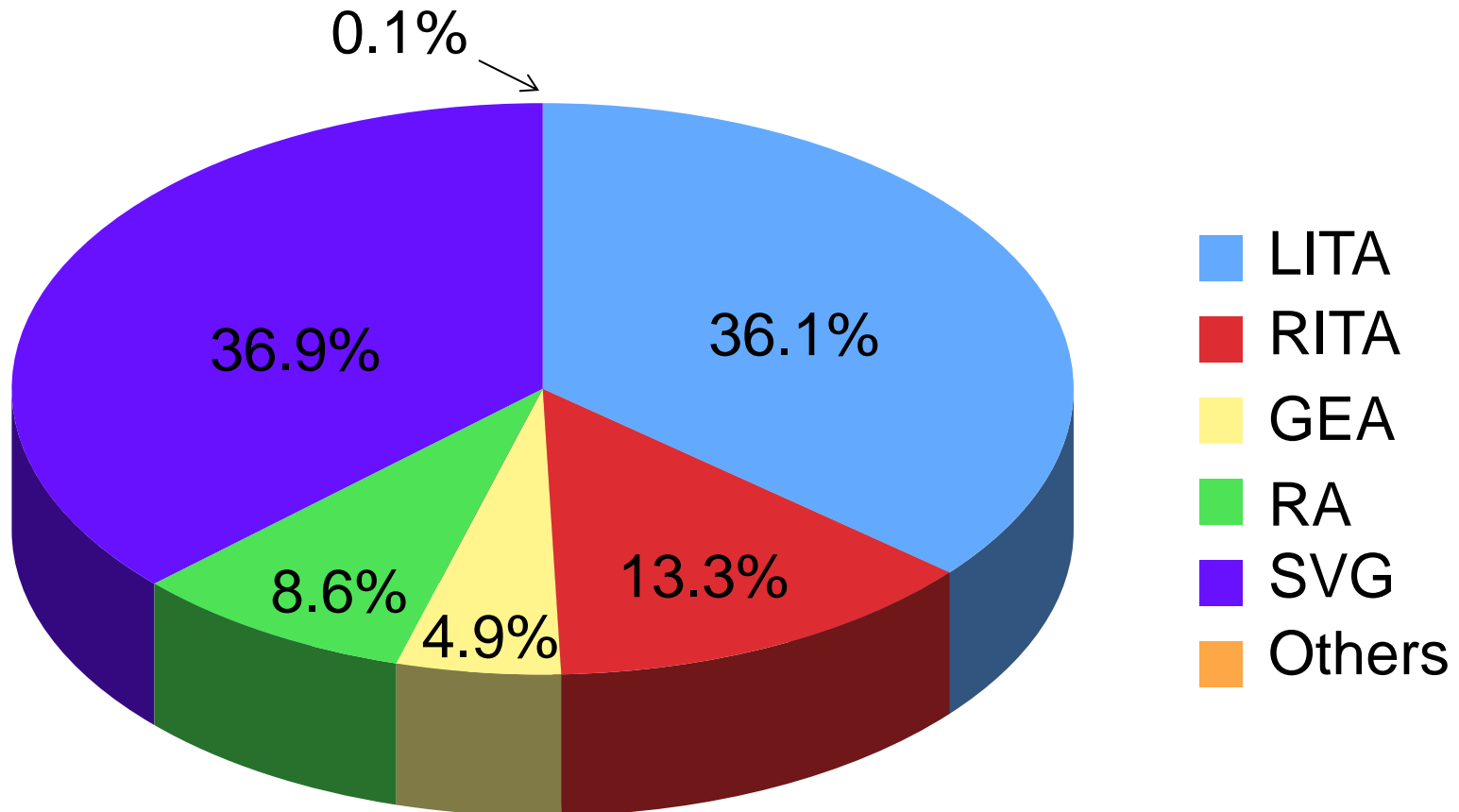


Changes in mortality according to age (Initial elective cases)



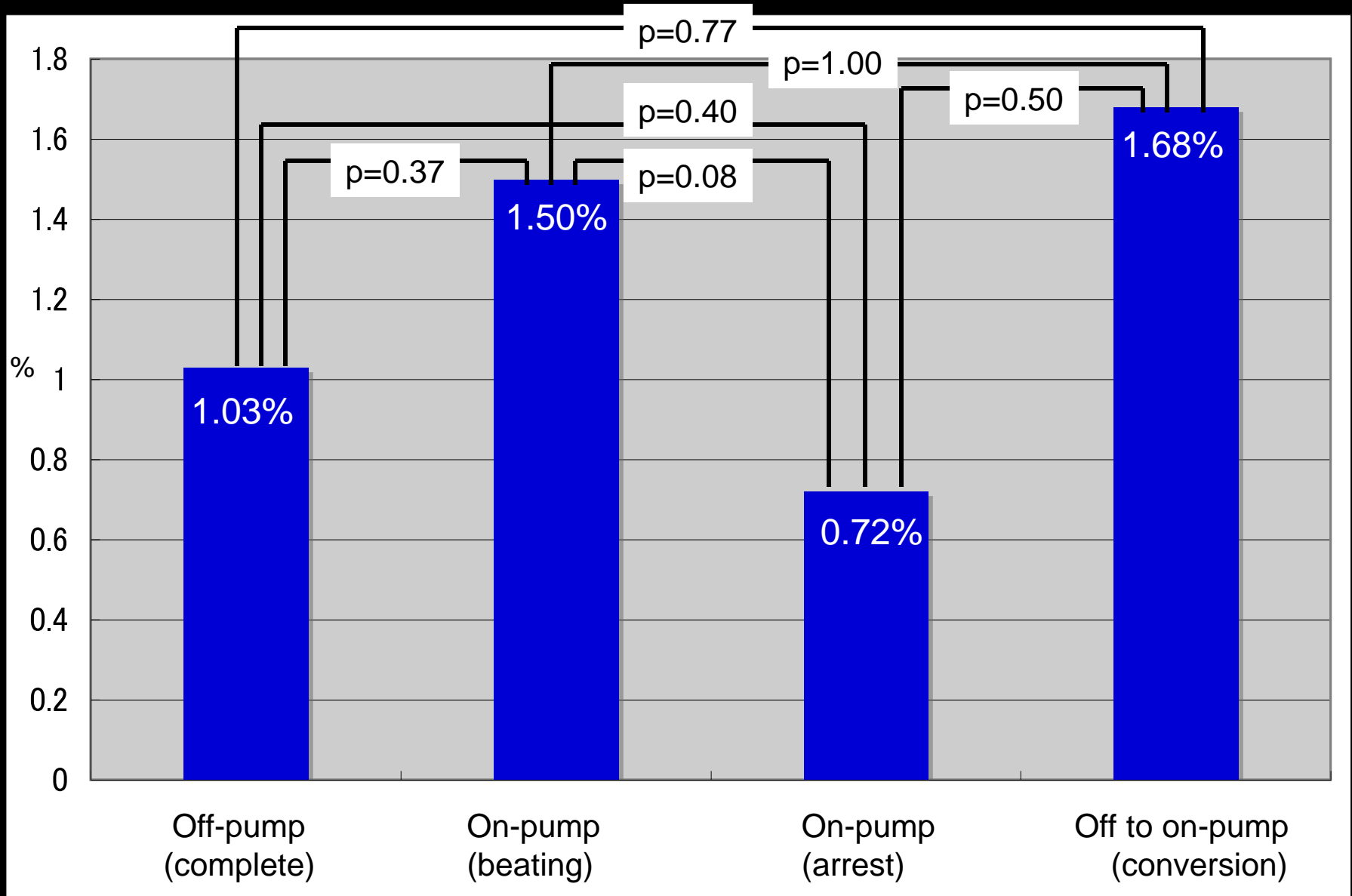
Graft selection

(Total number of grafts : 25,044 grafts)

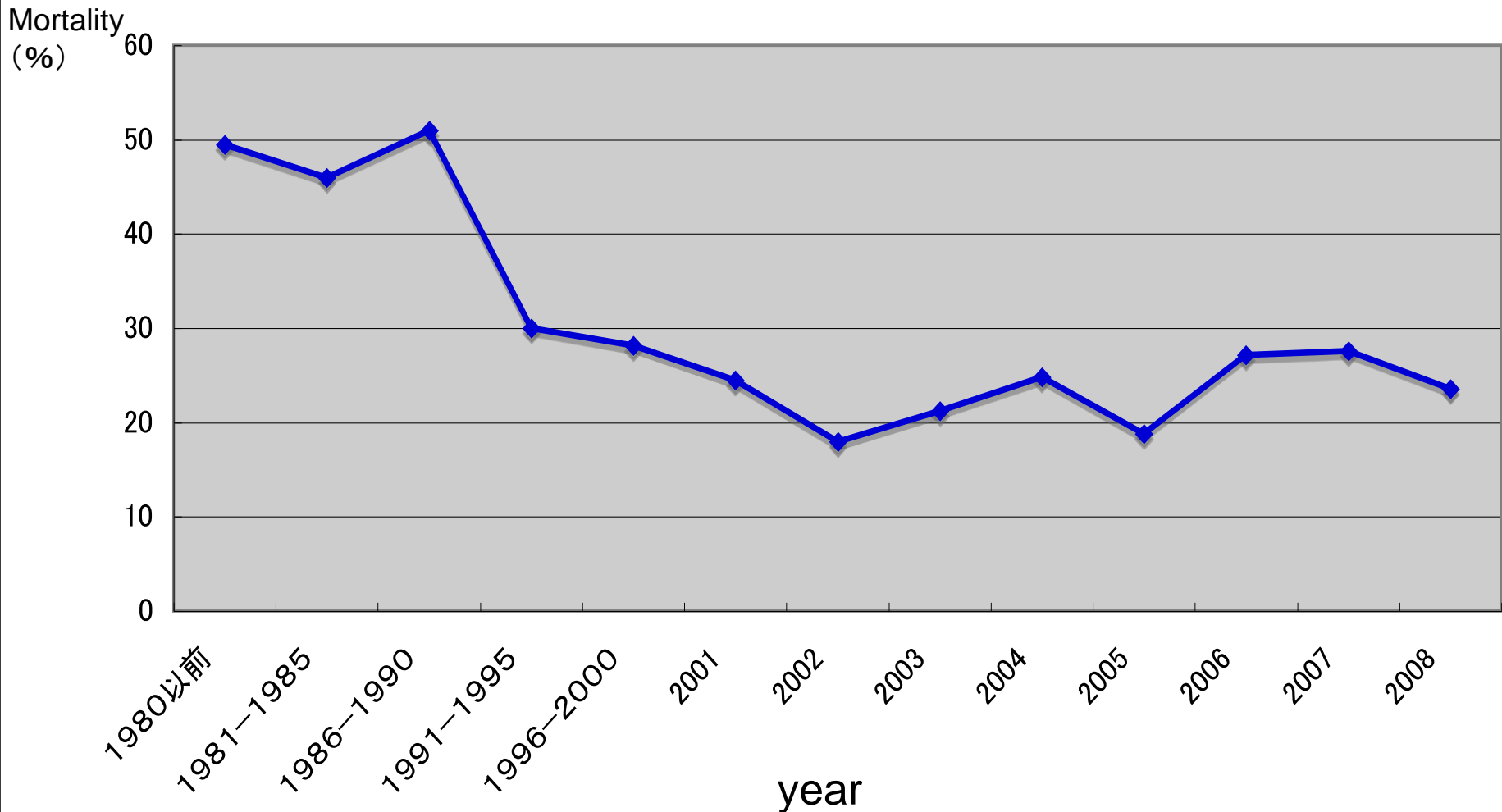


Complication rate of postoperative stroke according to surgical procedures

Total complication rate: 1.01%



Changes in mortality of VSP

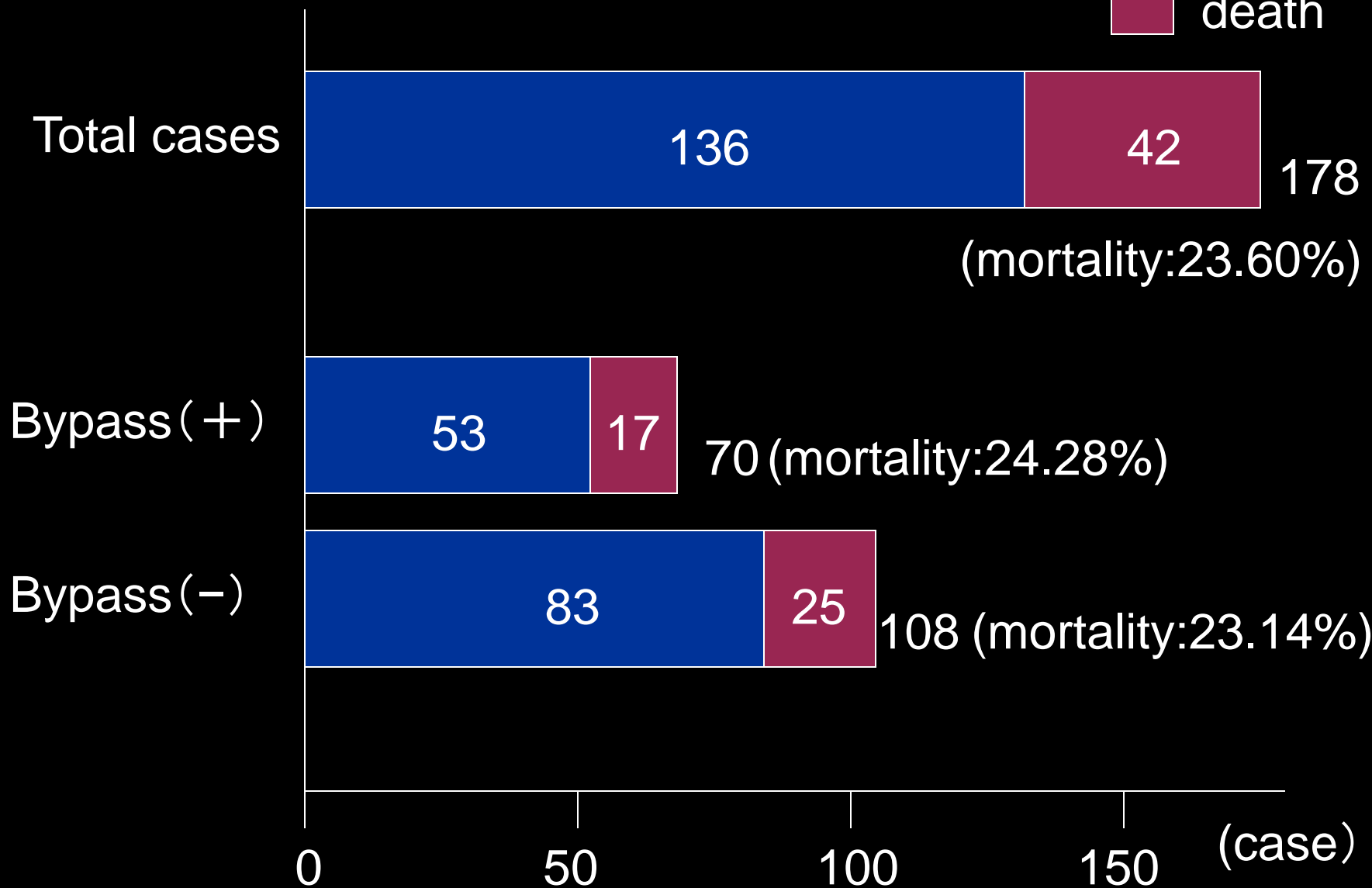


2008;

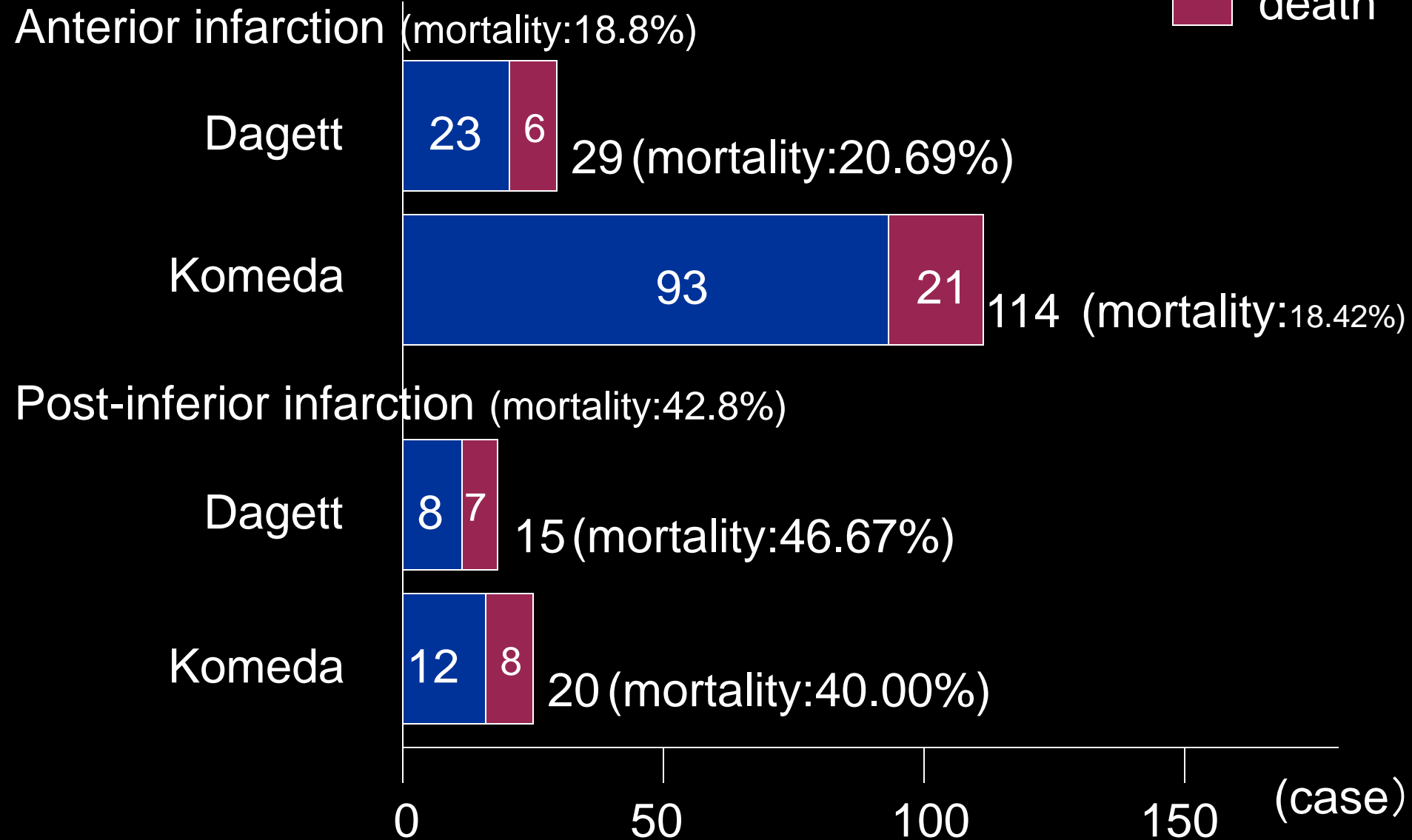
Total cases: 178、death cases: 42(Mortality: 23.6%)

Results of VSP (1)

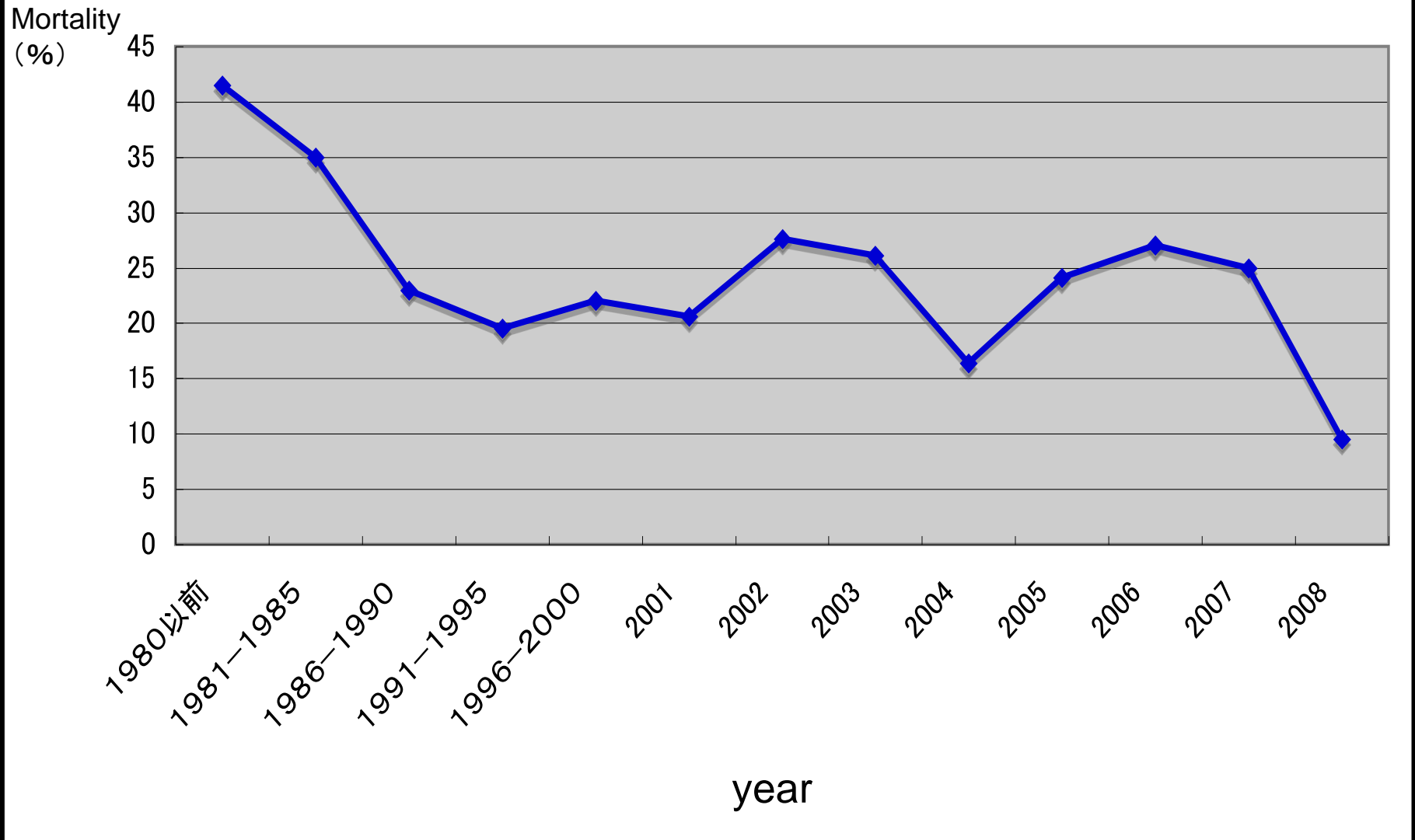
alive
death



Results of VSP (2)



Changes in mortality of papillary muscle rupture of LV

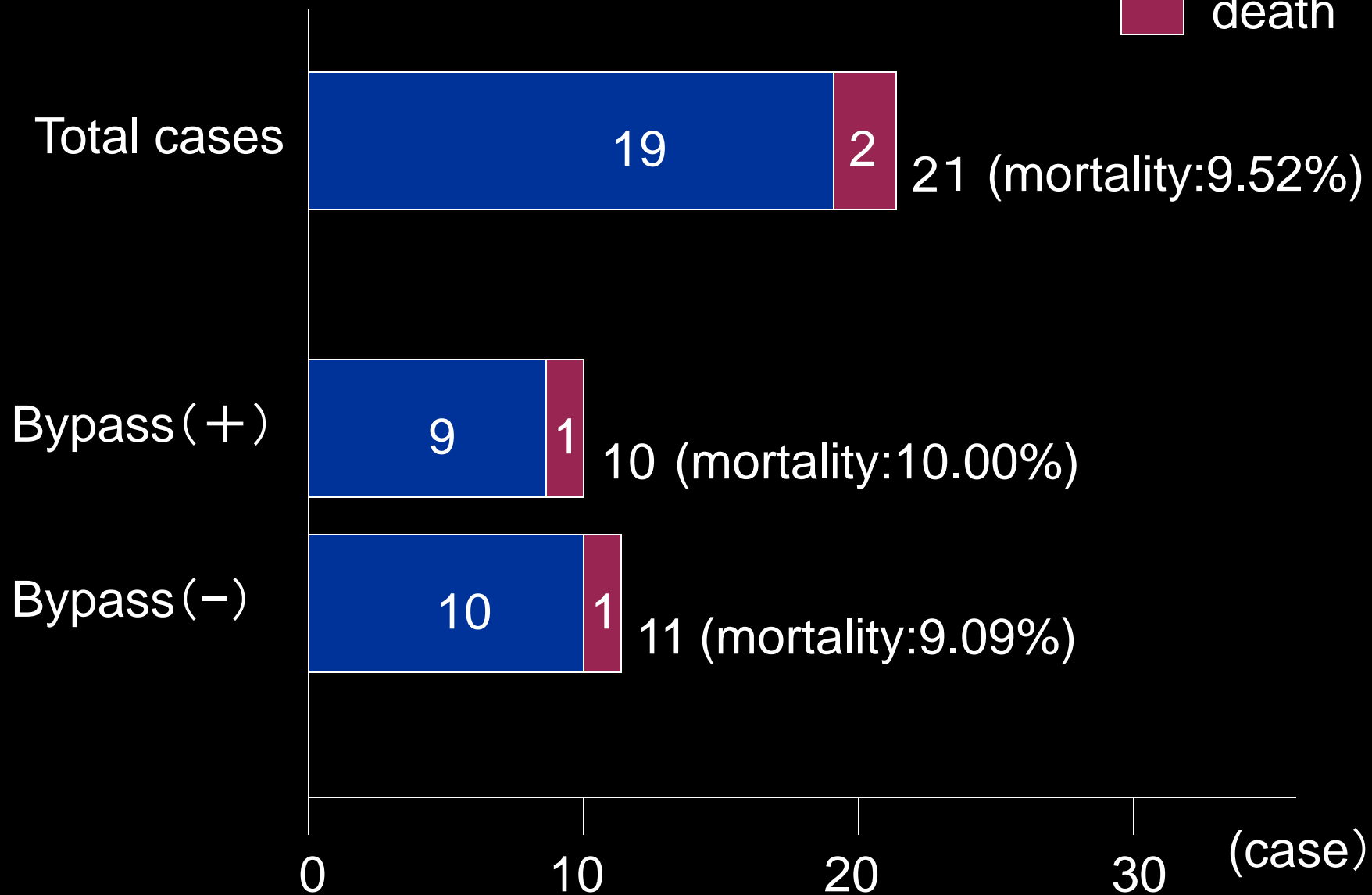


2008;

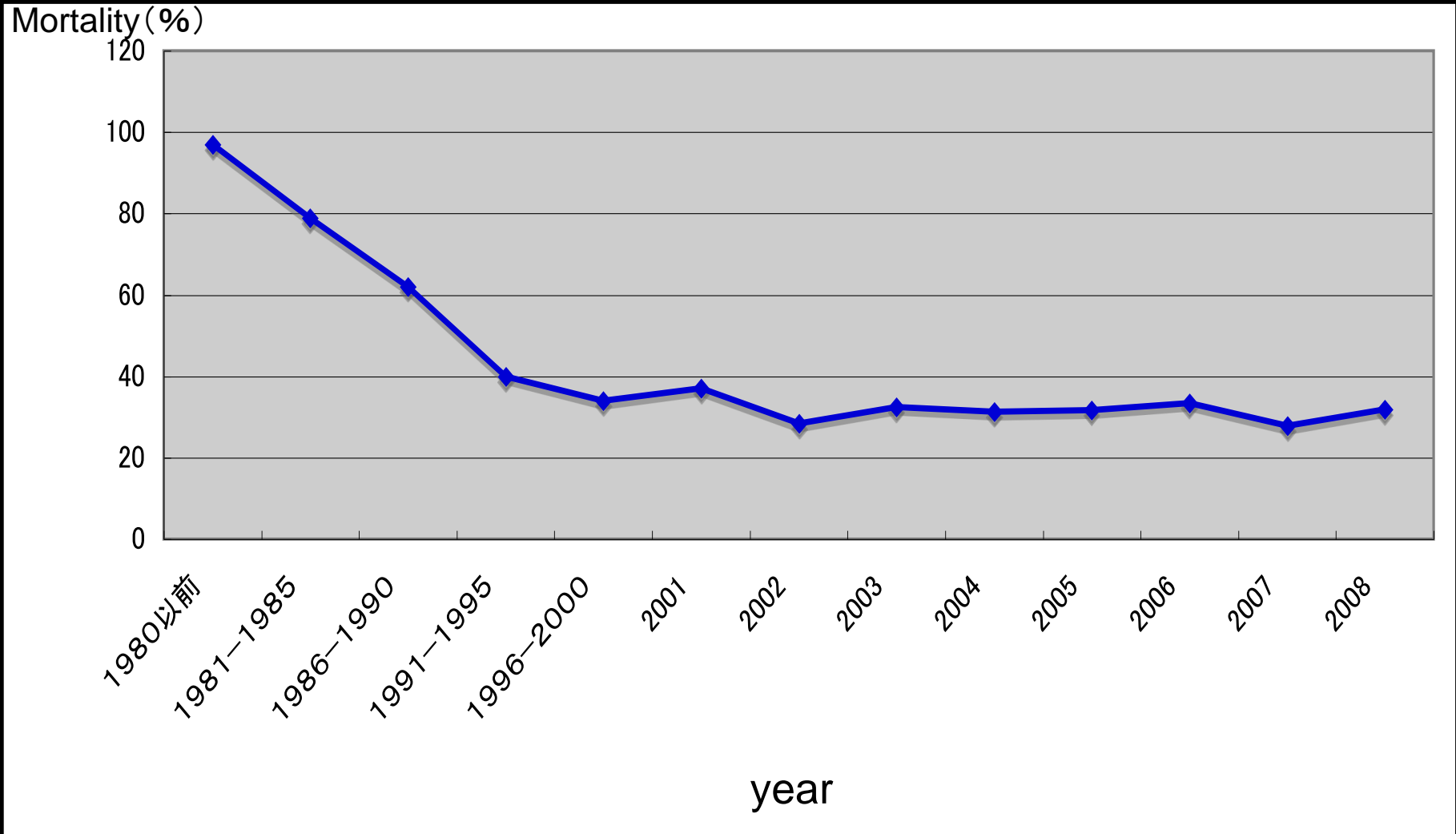
Total cases: 21、death cases: 2(mortality: 9.52%)

Results of papillary muscle rupture

alive
death



Changes in mortality of cardiac rupture



2008;

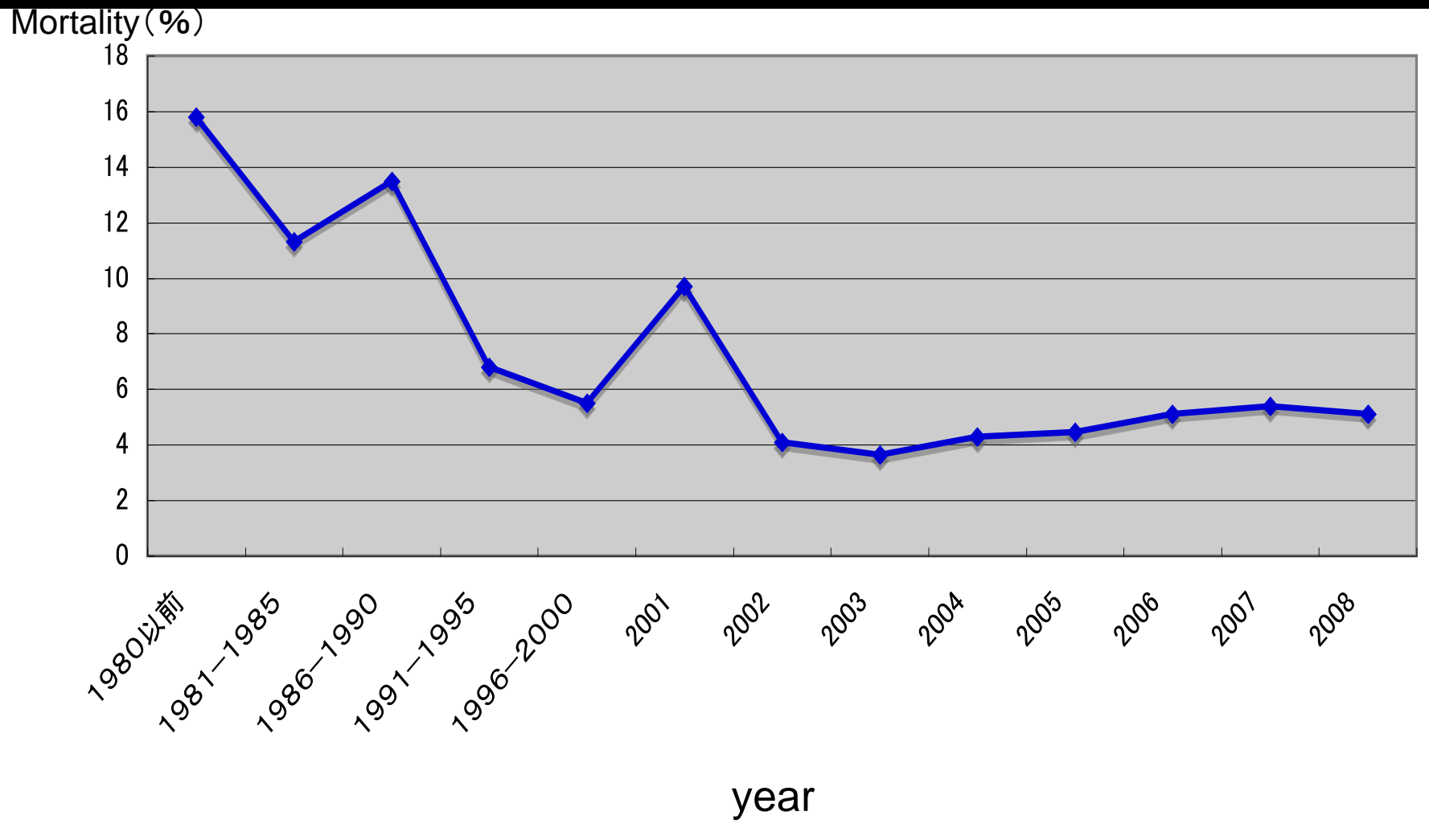
Total cases: 94、death cases: 30 (mortality: 31.9%)

Results of cardiac rupture

alive
death



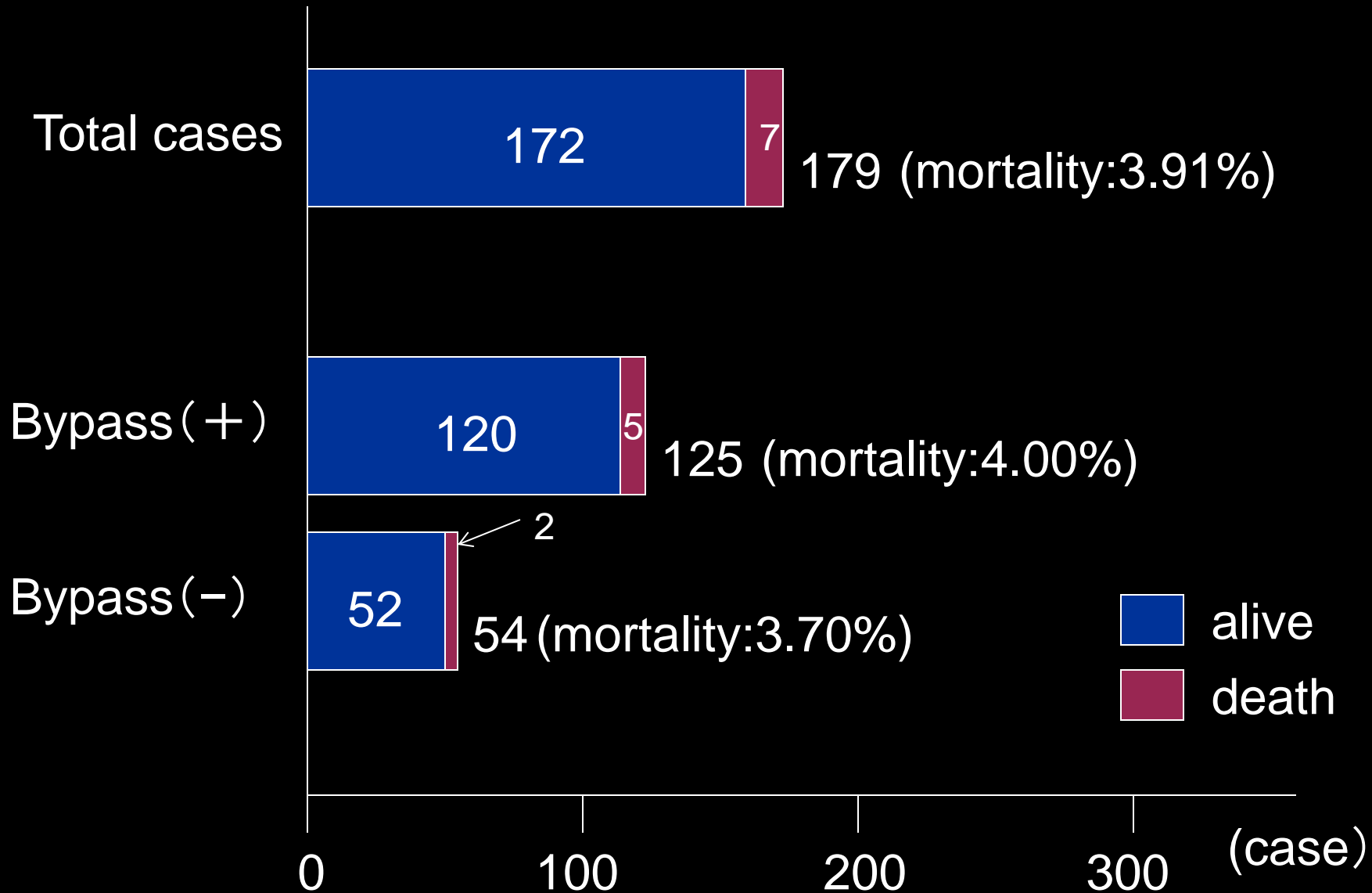
Changes in mortality of left ventricle aneurysm



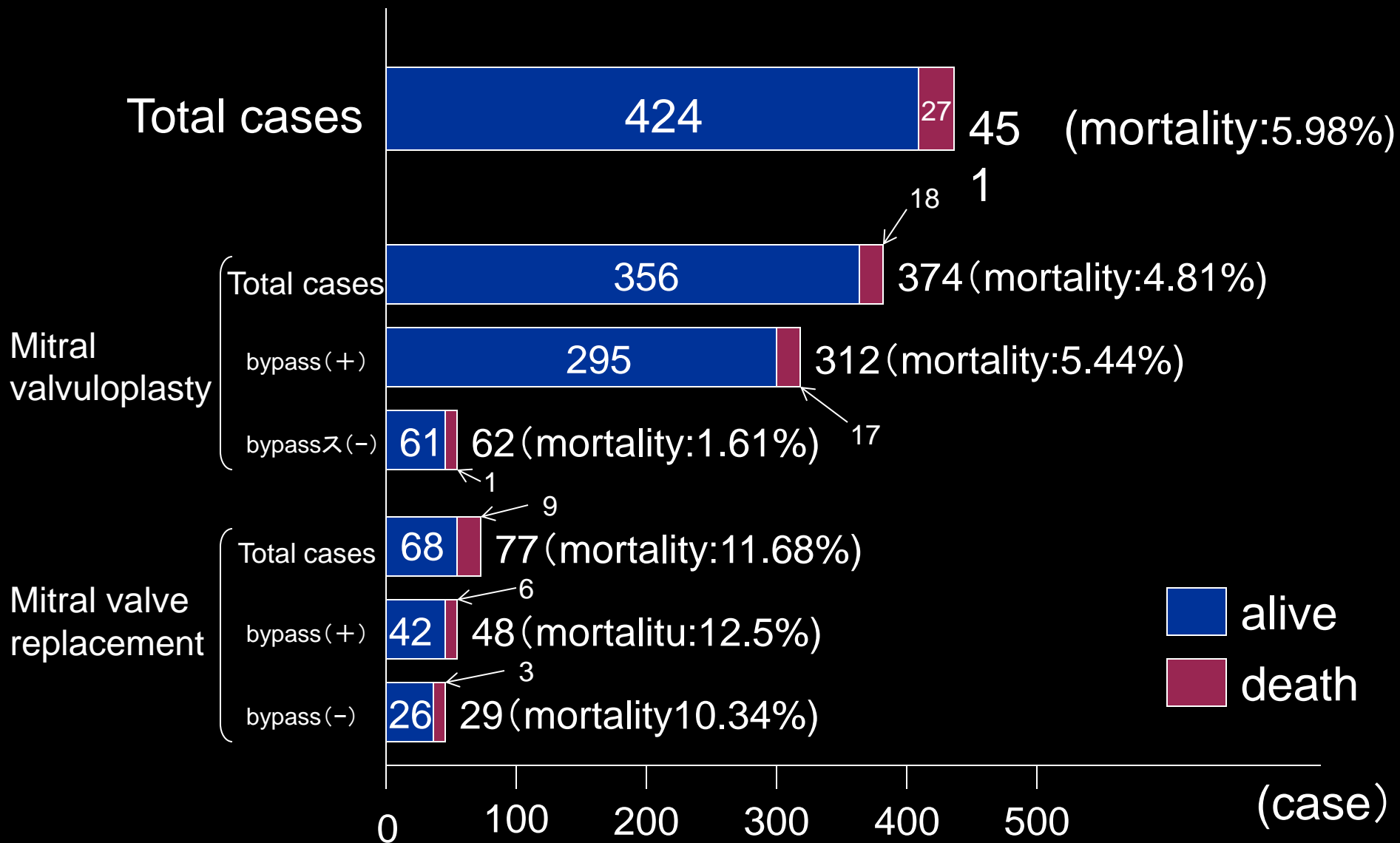
2008;

Total cases: 333、death cases 17 (mortality: 5.10%)

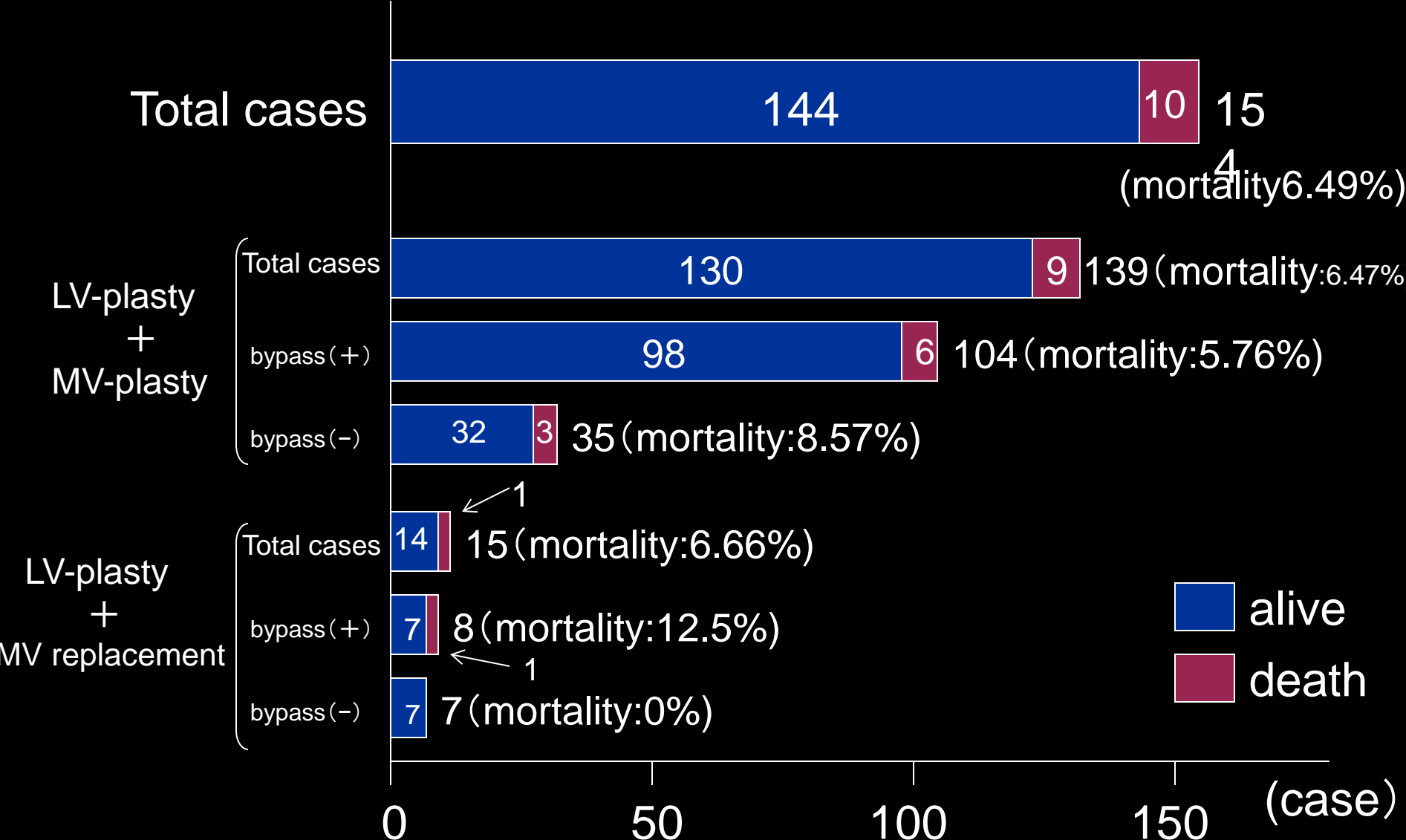
Results of left ventricular-plasty (including left ventriculectomy) against LV aneurysm and/or ischemic cardiomyopathy



Results of mitral valvuloplasty and replacement against ischemic mitral regurgitation



Results of LV aneurysm and or ischemic cardiomyopathy concomitant with mitral valve regurgitation



Conclusions (1)

- 1. The mortality of isolated CABG and initial elective CABG were 1.48%, and 0.81% respectively, indicating best results since this survey started.**
- 2. Of all initial elective CABG, 65% cases underwent off-pump CABG (OPCAB), showing high frequency rate. The mortality of OPCAB was 0.62%, showing excellent results.**
- 3. The mean number of grafts for CABG was 2.95, which increased than that of last years, indicating more bypass performed.**
- 4. Of 4 or more bypass surgery, 57% cases underwent OPCAB.**

Conclusions (2)

6. CABG cases have been getting older ; the rate of 70 or more years old was 50%、80 or more years old was about 10%.
7. The frequency use rate of arterial grafts was 63%, on the other hand, that of vein graft was 37%.
8. Postoperative stroke rate of CABG was 1.01% and there were no significant differences between those of other procedures.
9. As for the results of complications after myocardial infarction, the cases of ischemic mitral regurgitation increased. The mortality of VSP, rupture of papillary muscle of LV, and cardiac rupture were still bad, indicating high mortality.