

Coronary artery surgery results 2006, in Japan

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

Yukiyasu Sezai

Coronary artery bypass grafting (CABG), 2006

Total cases : 13,170

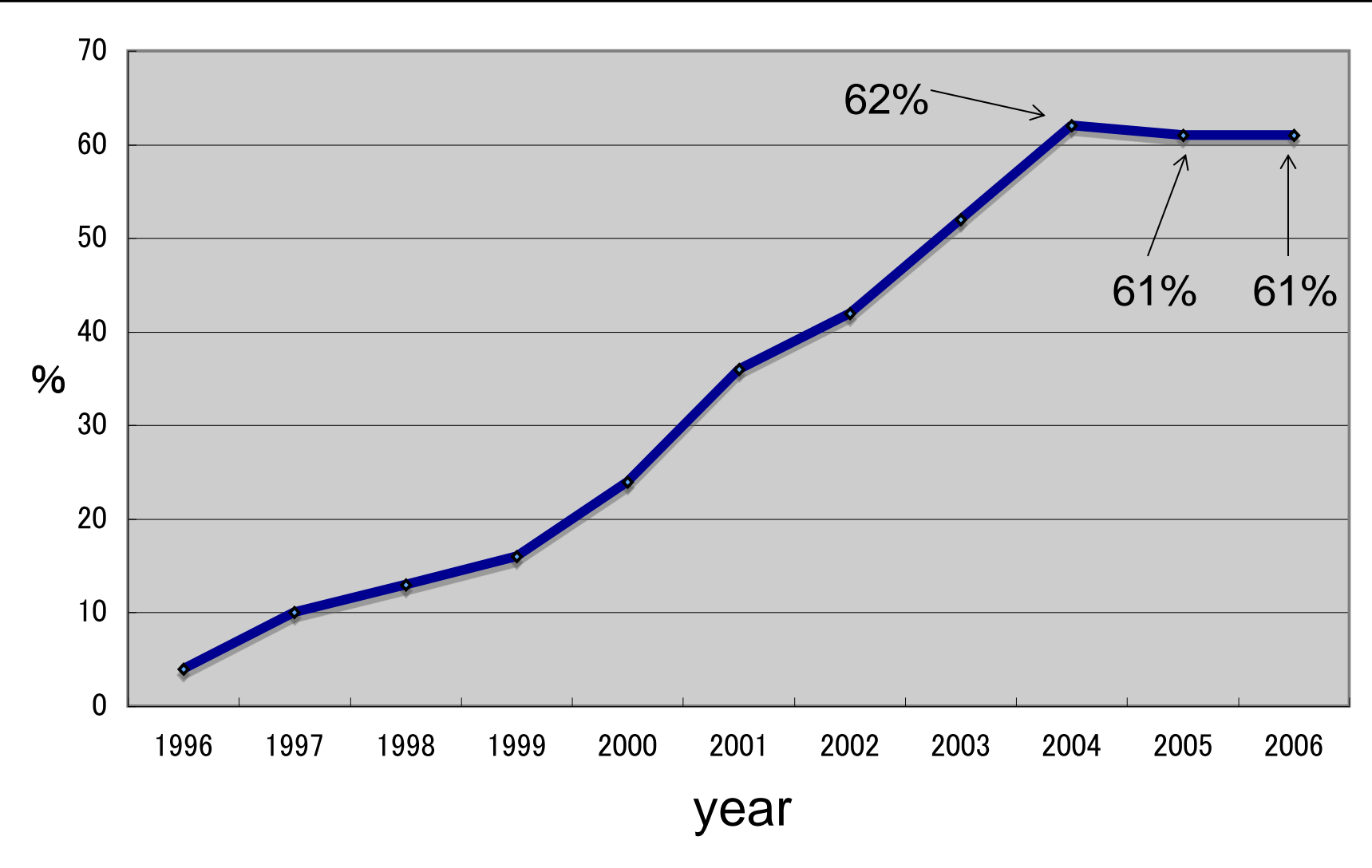
Isolated CABG : 10,623

Concomitant CABG : 2,547

Isolated CABG

Initial elective	: 9,032	Extra initial elective	: 1,591	
Off-pump	: 5,514	Off-pump	:	
779	On-pump	: 3,518	On-pump	:
812				
	(Off-pump rate : 61%)		(Off-pump rate : 49%)	
	(previous year : 61%)			

Changes in OPCAB frequency rate of initial elective CABG



Total cases of initial elective :9,032(100%)

On-pump (cardiac arrest)	:2,641(29.2%)
On-pump (cardiac beating)	: 877(9.7%)
Off-pump (total cases)	:5,514(61.0%)
Off-pump (complete)	:5,383
On-pump (convert)	: 131

OPCAB complete rate :97.6%

Off to on-pump convert rate : 2.4%
(previous year:2.5%)

Mortality of isolated CABG:1.86%
(previous year:1.91%)

Mortality of initial elective CABG:0.98%
(previous
year:0.89%)

On-pump (cardiac arrest) :0.57%

On-pump (cardiac beating) :2.05%

Off-pump (total cases) :1.01%

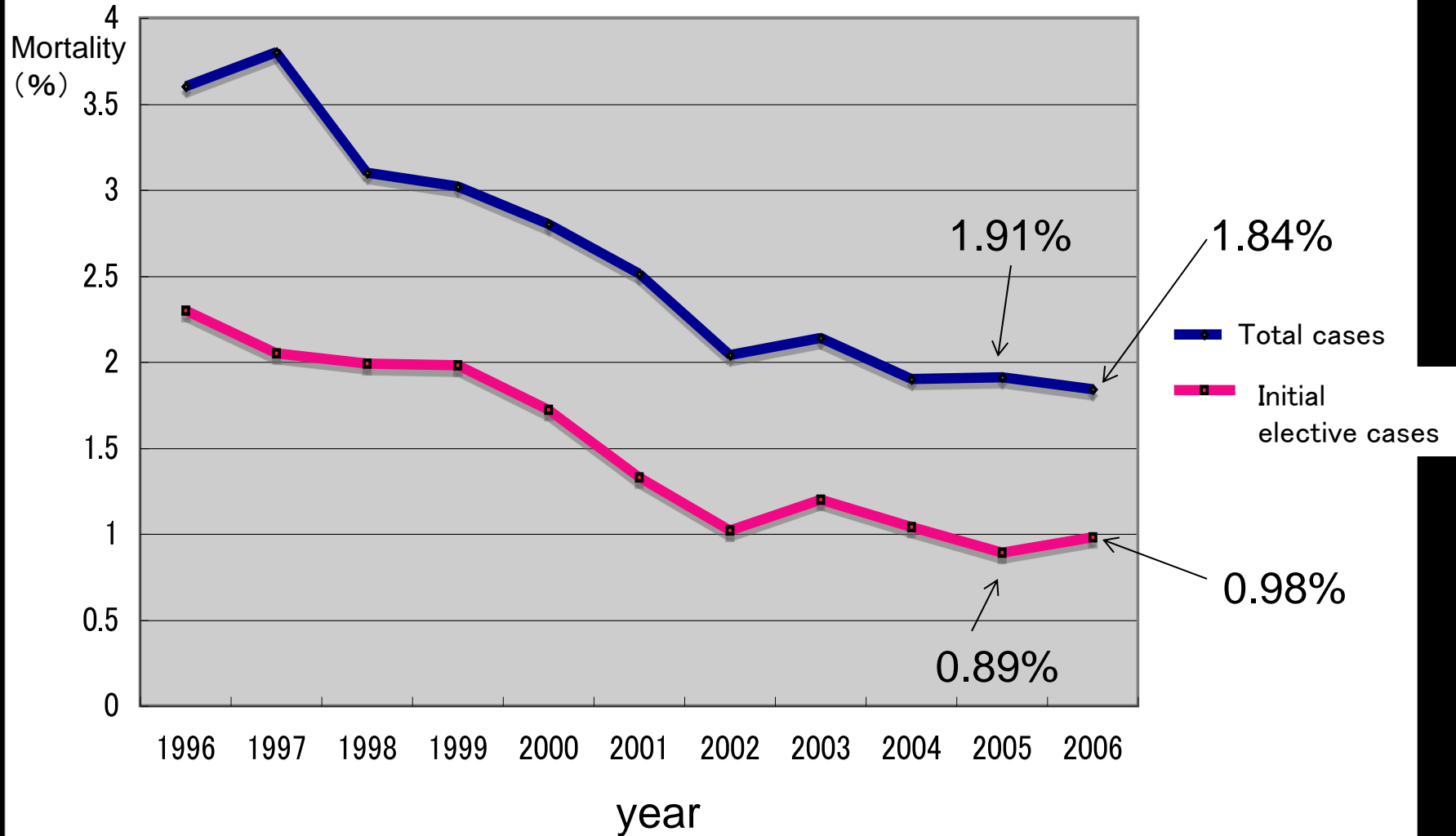
Off-pump (complete) :**0.91%**

(previous year:0.60%)

On to on-pump (convert) :**5.34%**

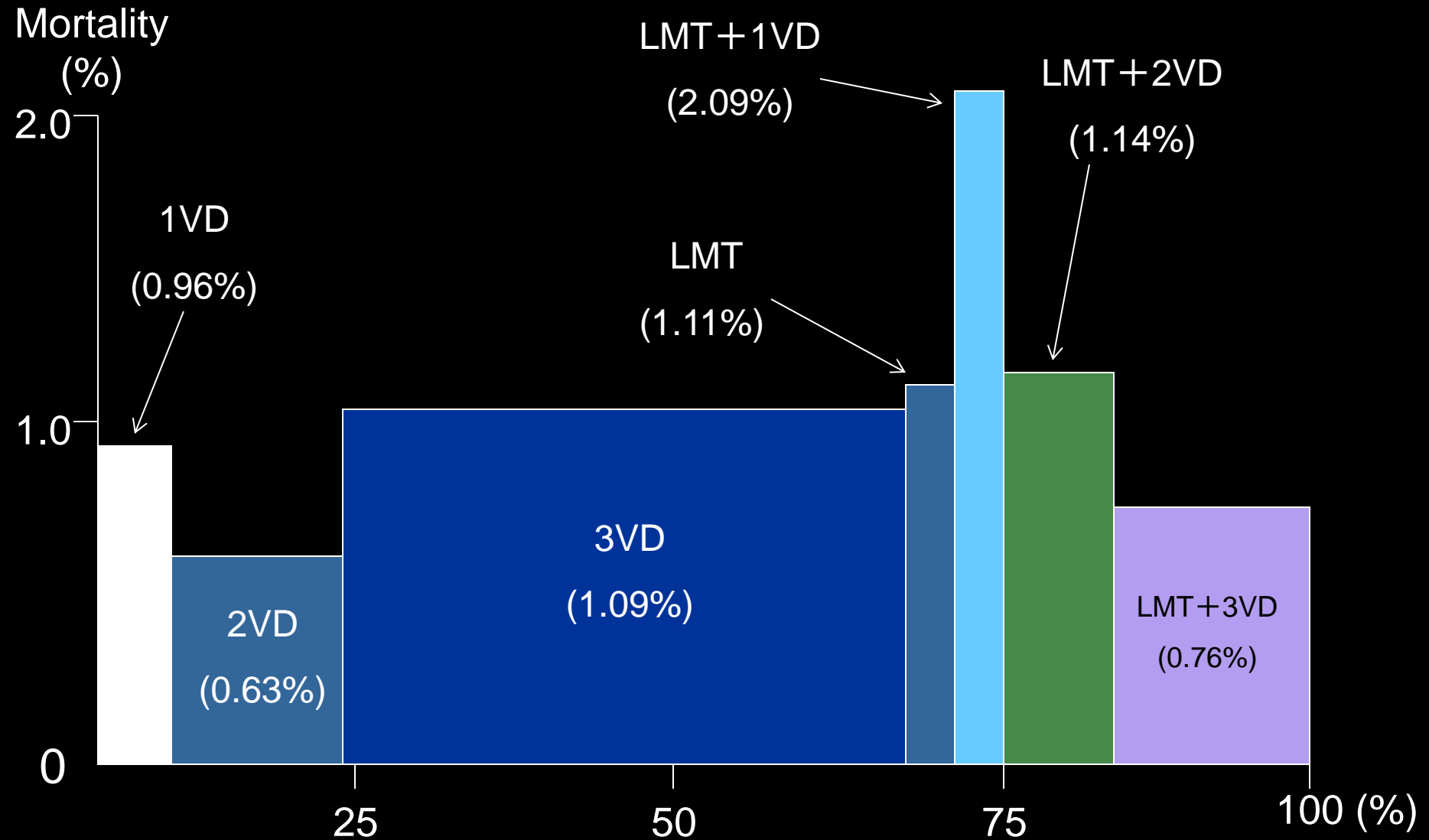
(previous year:4.13%)

Changes in mortality of CABG



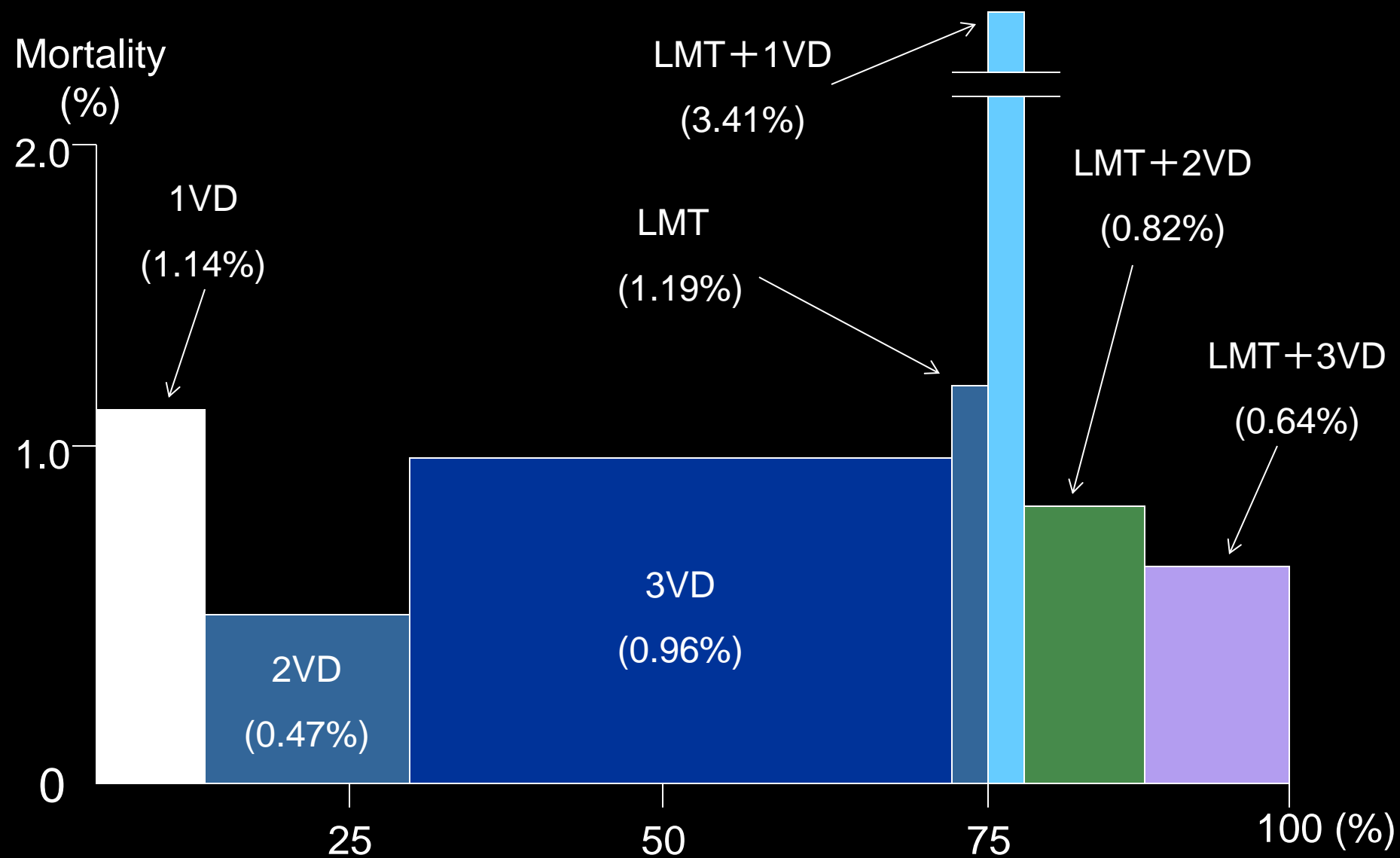
Surgical results according to diseased vessels

(Initial elective cases : 9,032, mortality:0.98%)



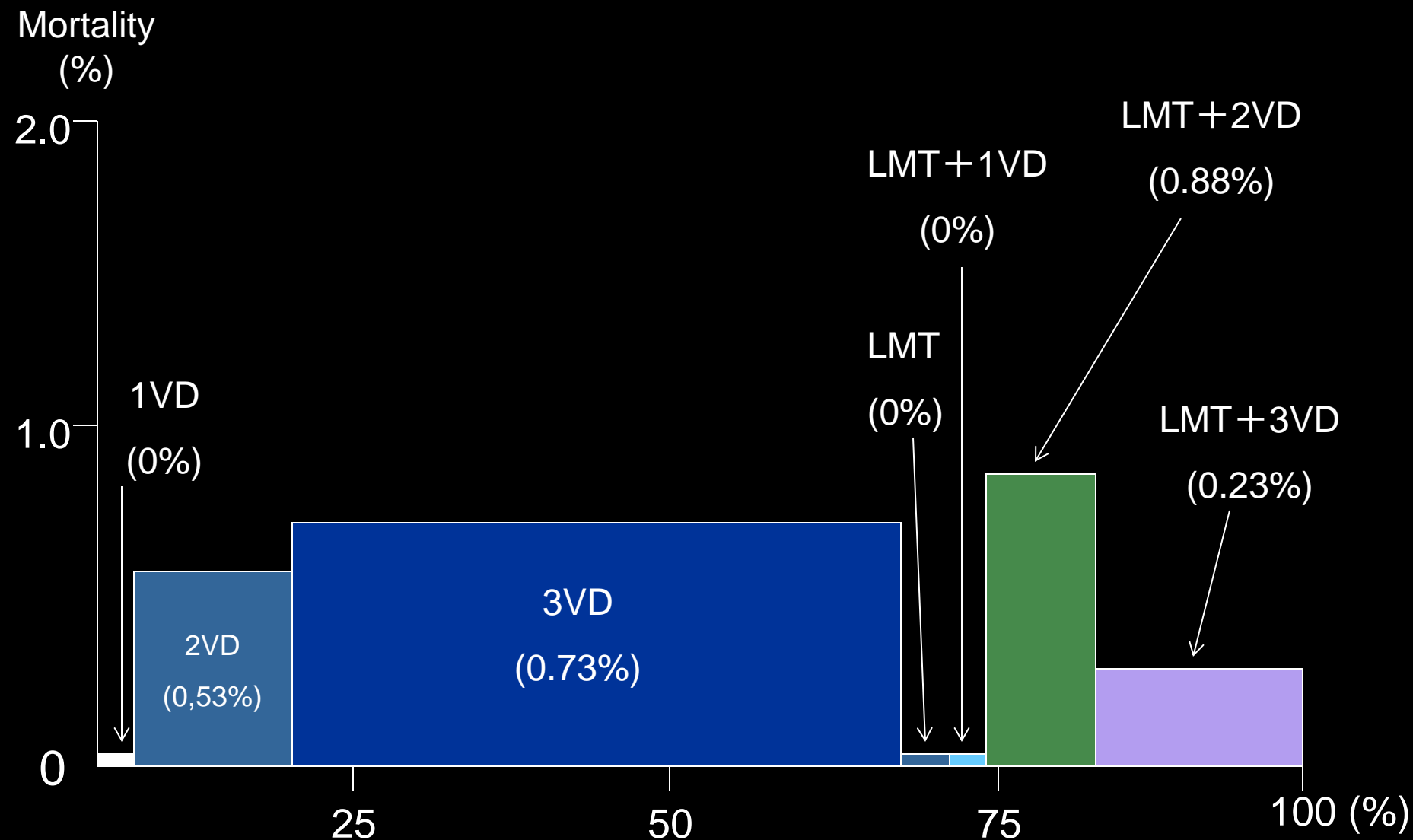
Surgical results according to diseased vessels

(Initial elective off-pump (complete): 5,383, mortality:0.91%)



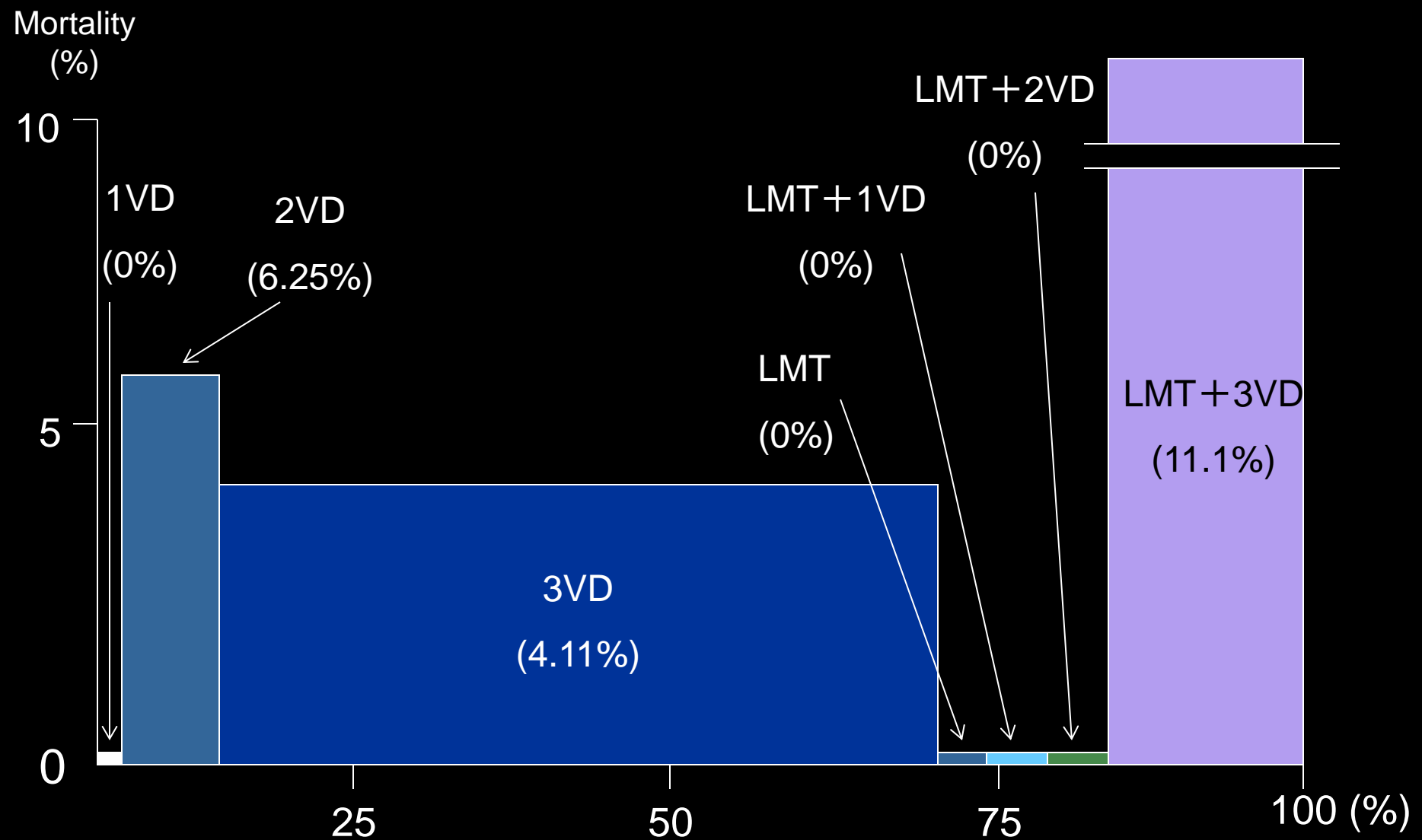
Surgical results according to diseased vessels

(Initial elective on-pump (arrest): 2,641, mortality: 0.57%)



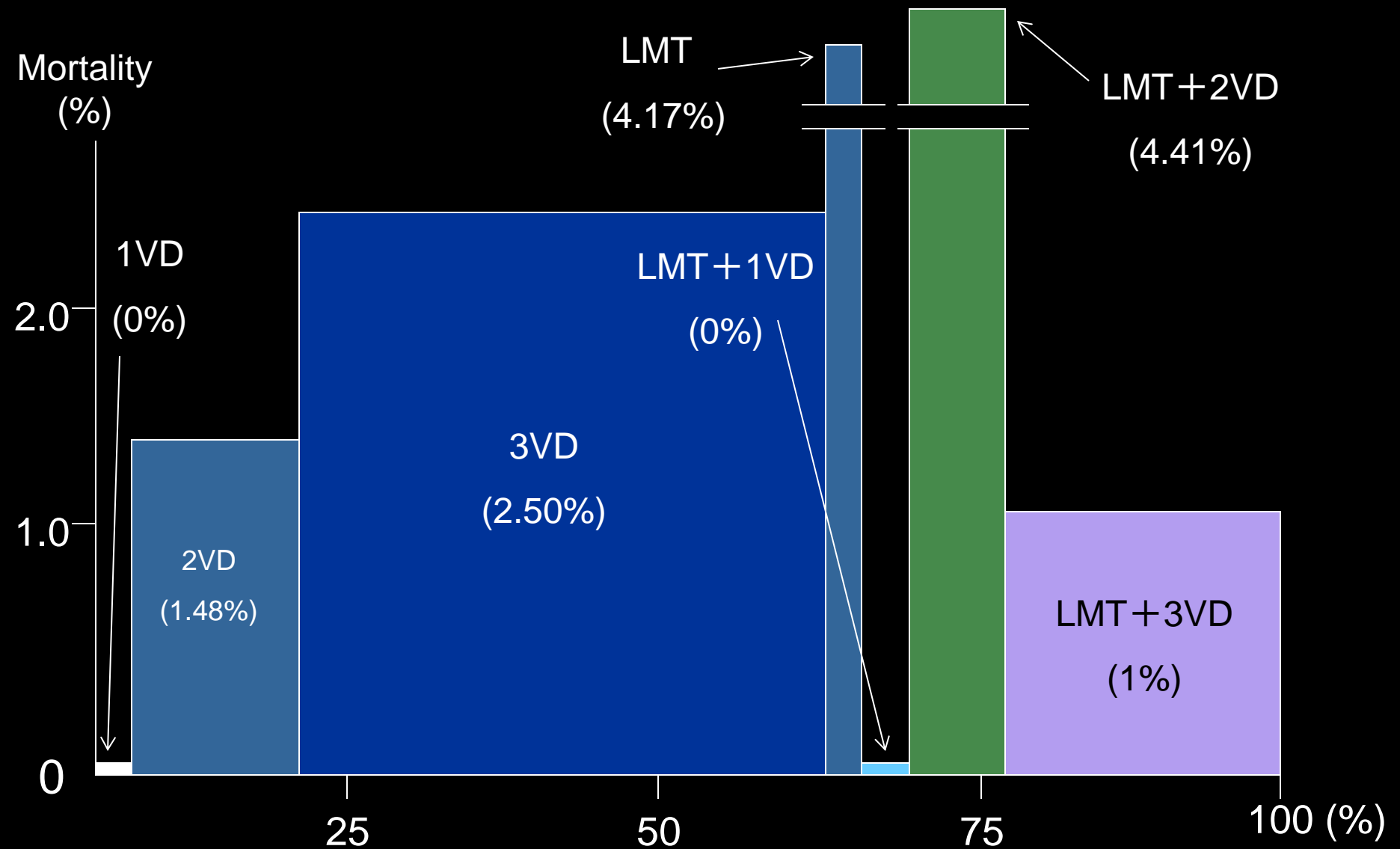
Surgical results according to diseased vessels

(Initial elective off to on-pump (conversion): 131, mortality:5.34%)



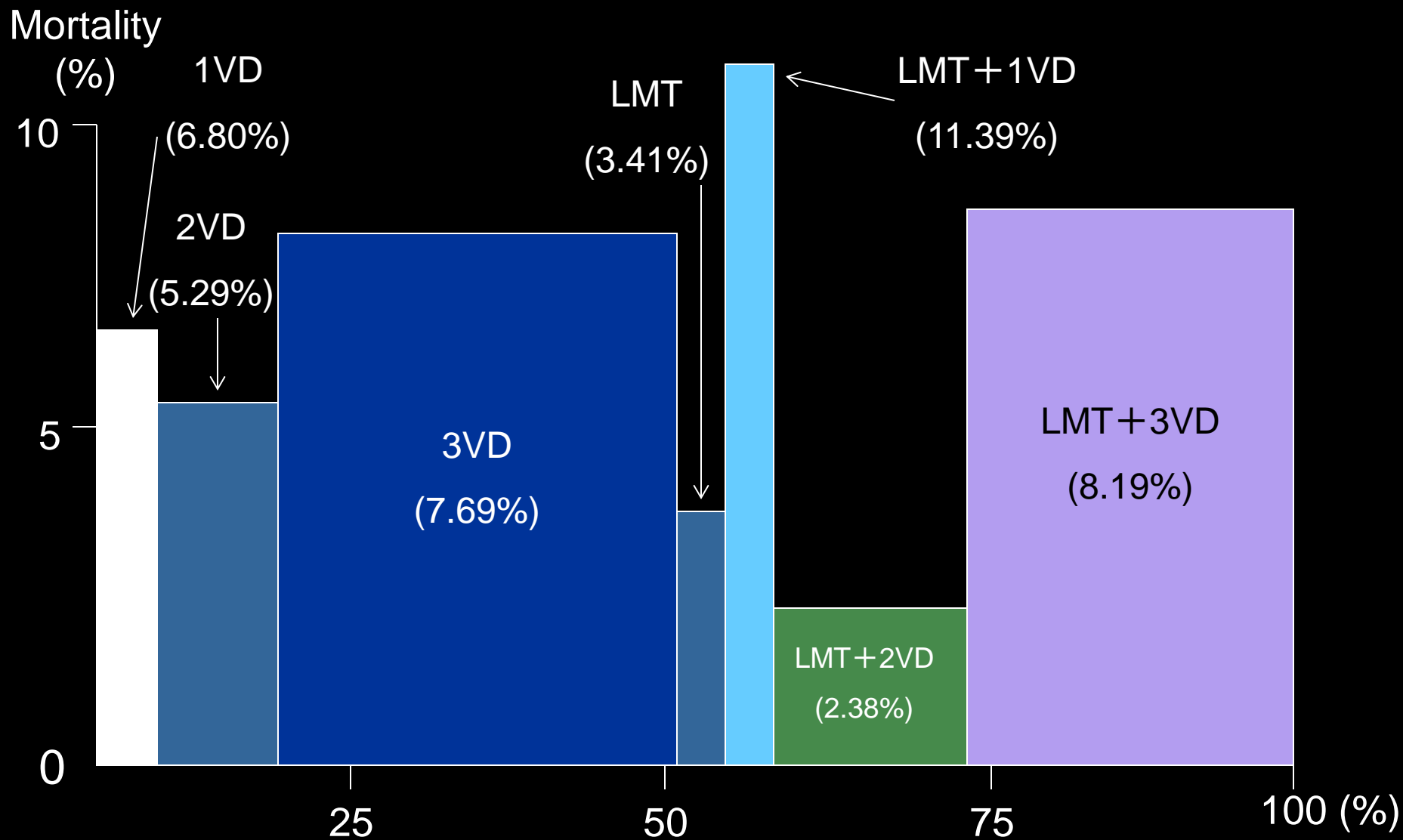
Surgical results according to diseased vessels

(Initial elective on-pump (beating): 877, mortality: 2.05%)



Surgical results according to diseased vessels

(Extra initial elective cases: 1,591, mortality:6.73%)



Surgical results according to procedures

(**Except initial elective cases** : 1,591, mortality:6.73%)

Mortality

(%)

10

5

0

25

50

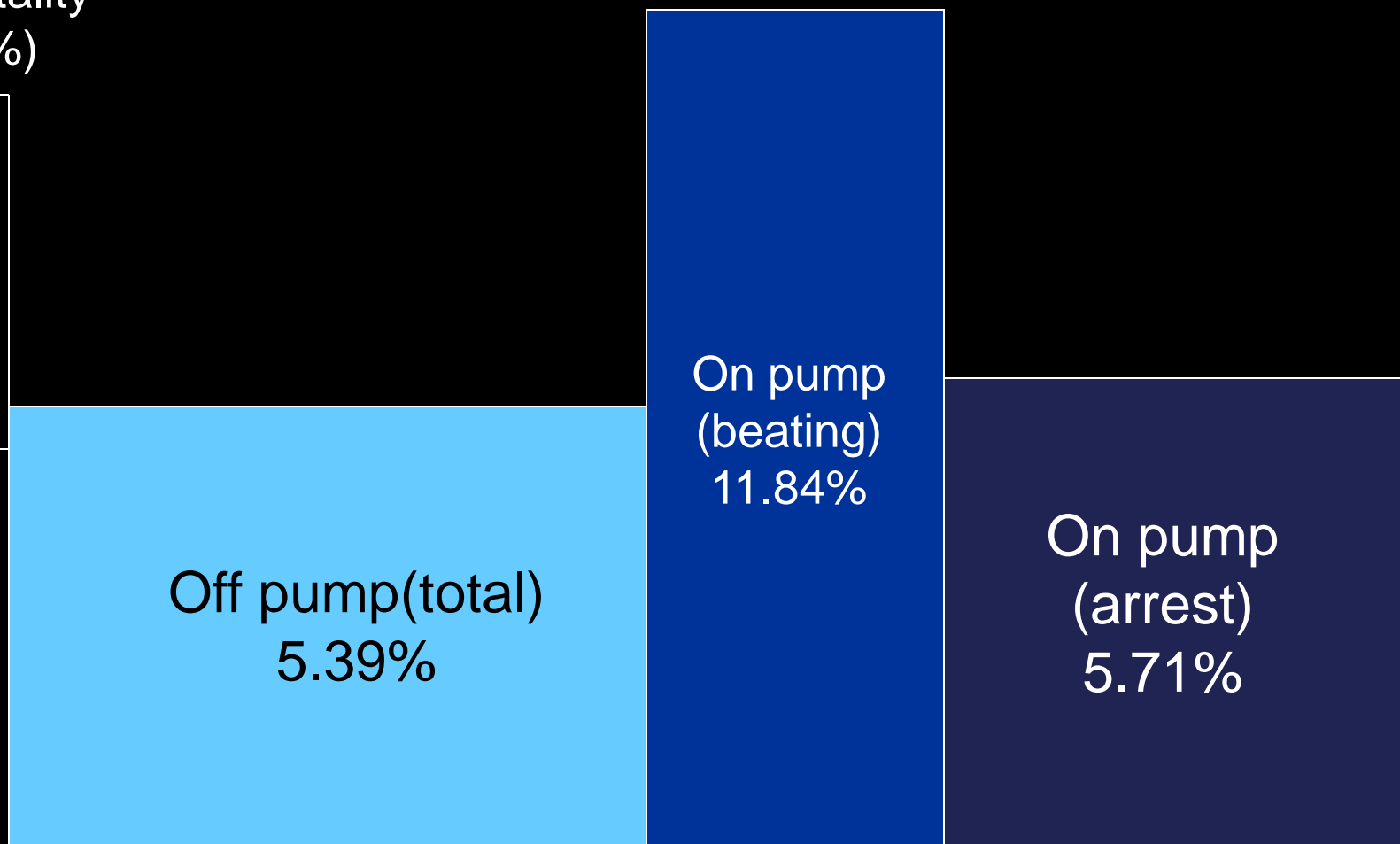
75

100 (%)

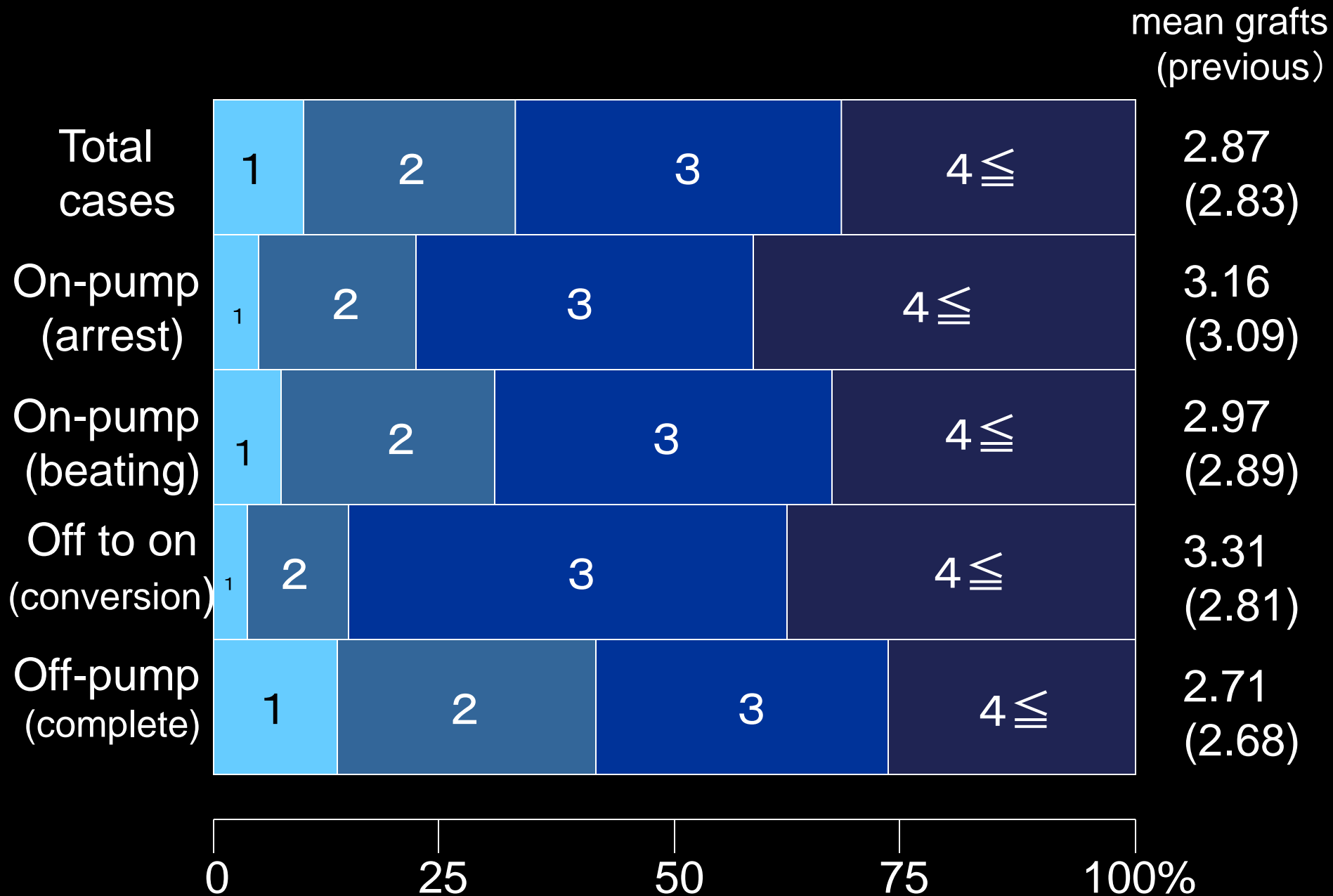
Off pump(total)
5.39%

On pump
(beating)
11.84%

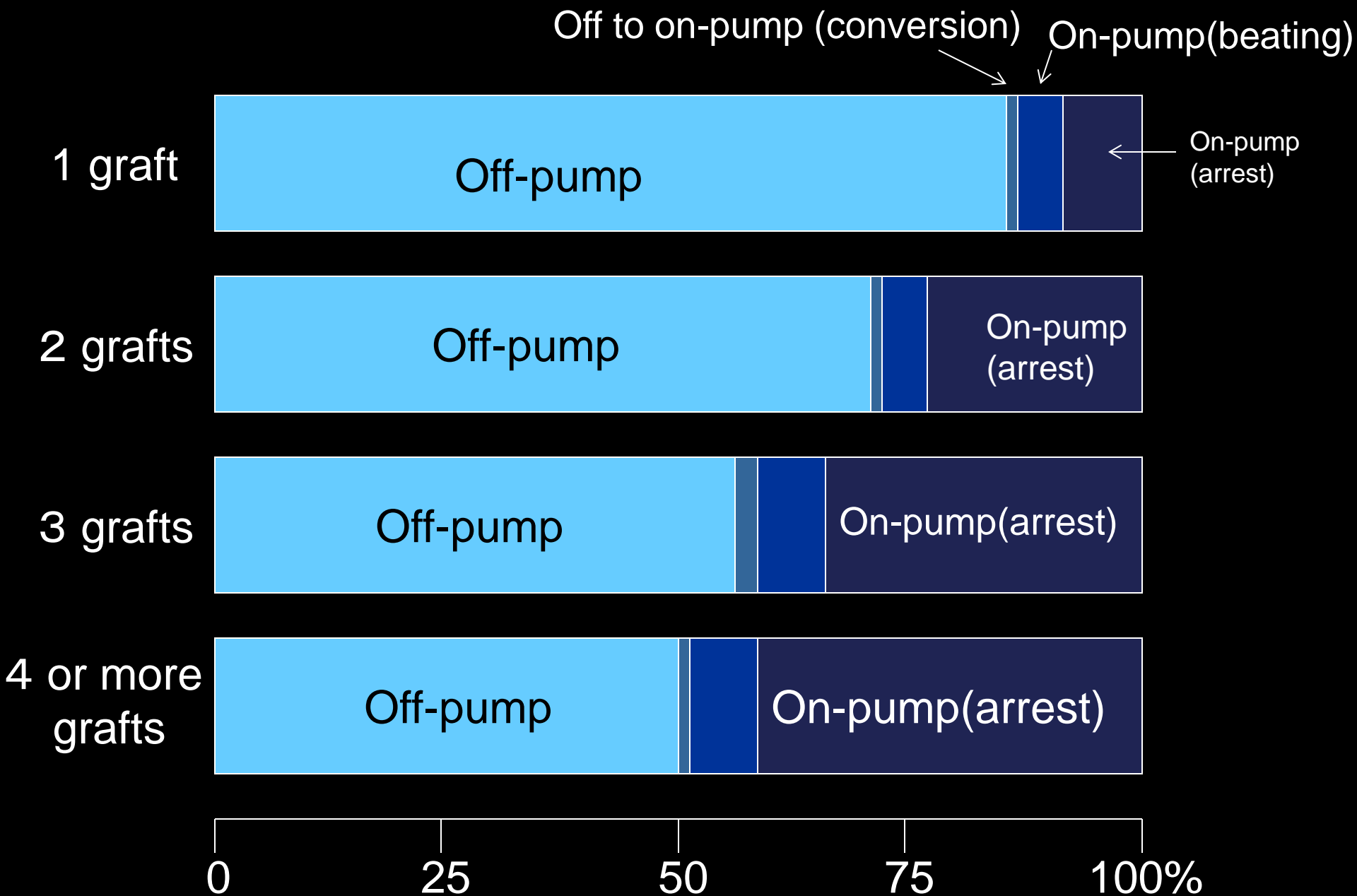
On pump
(arrest)
5.71%



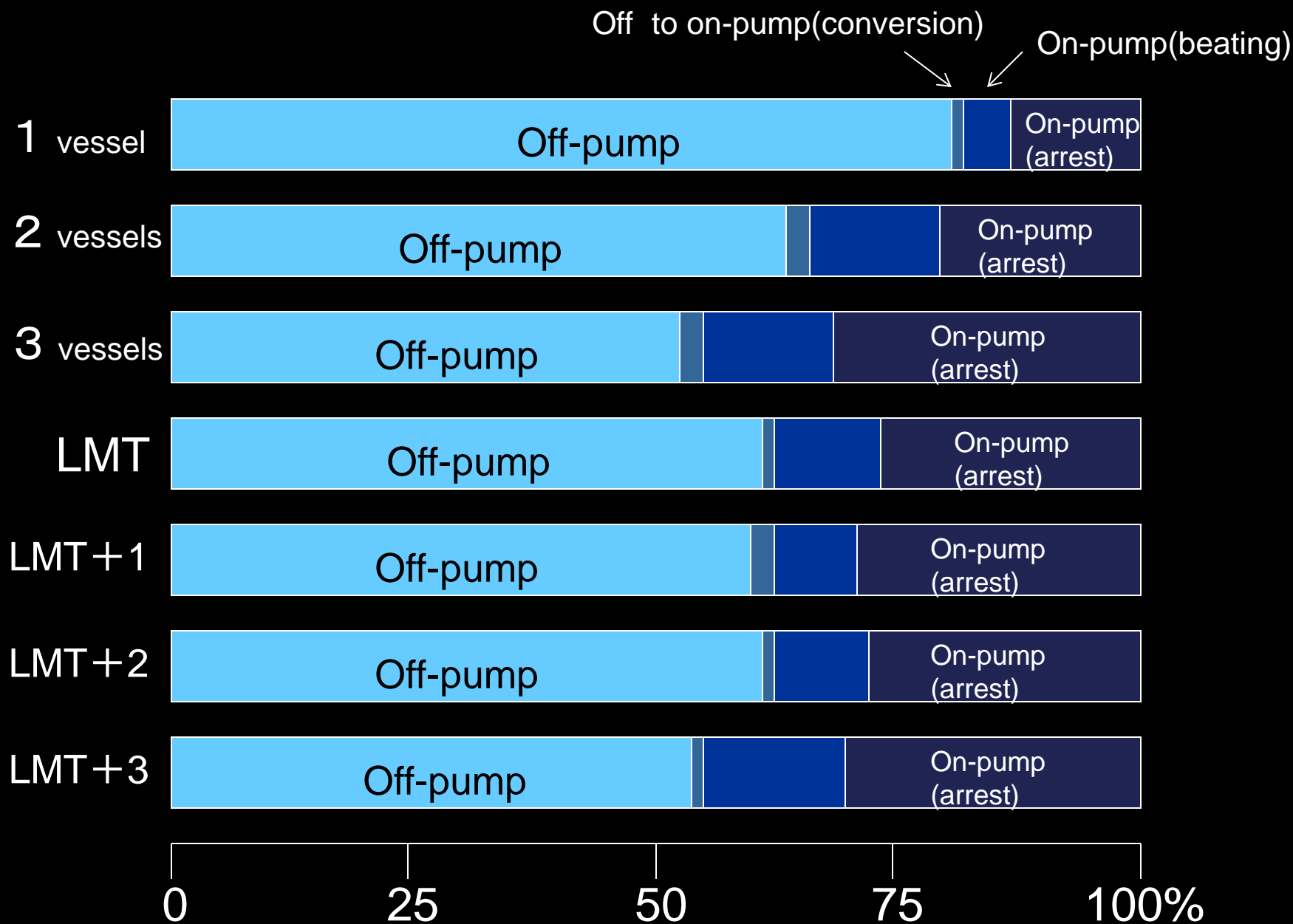
Number of grafts according to surgical procedures



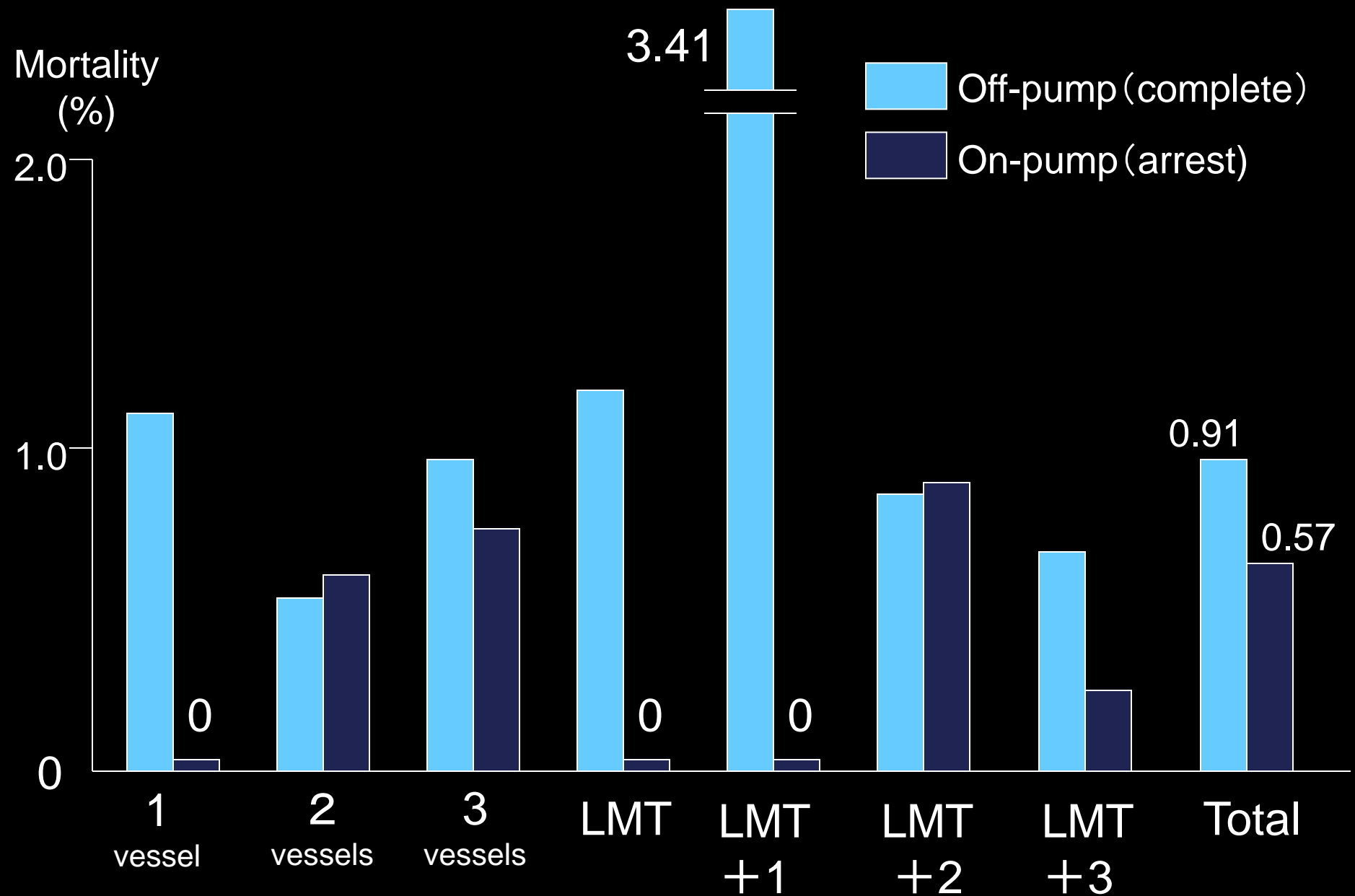
Surgical procedures according to number of grafts



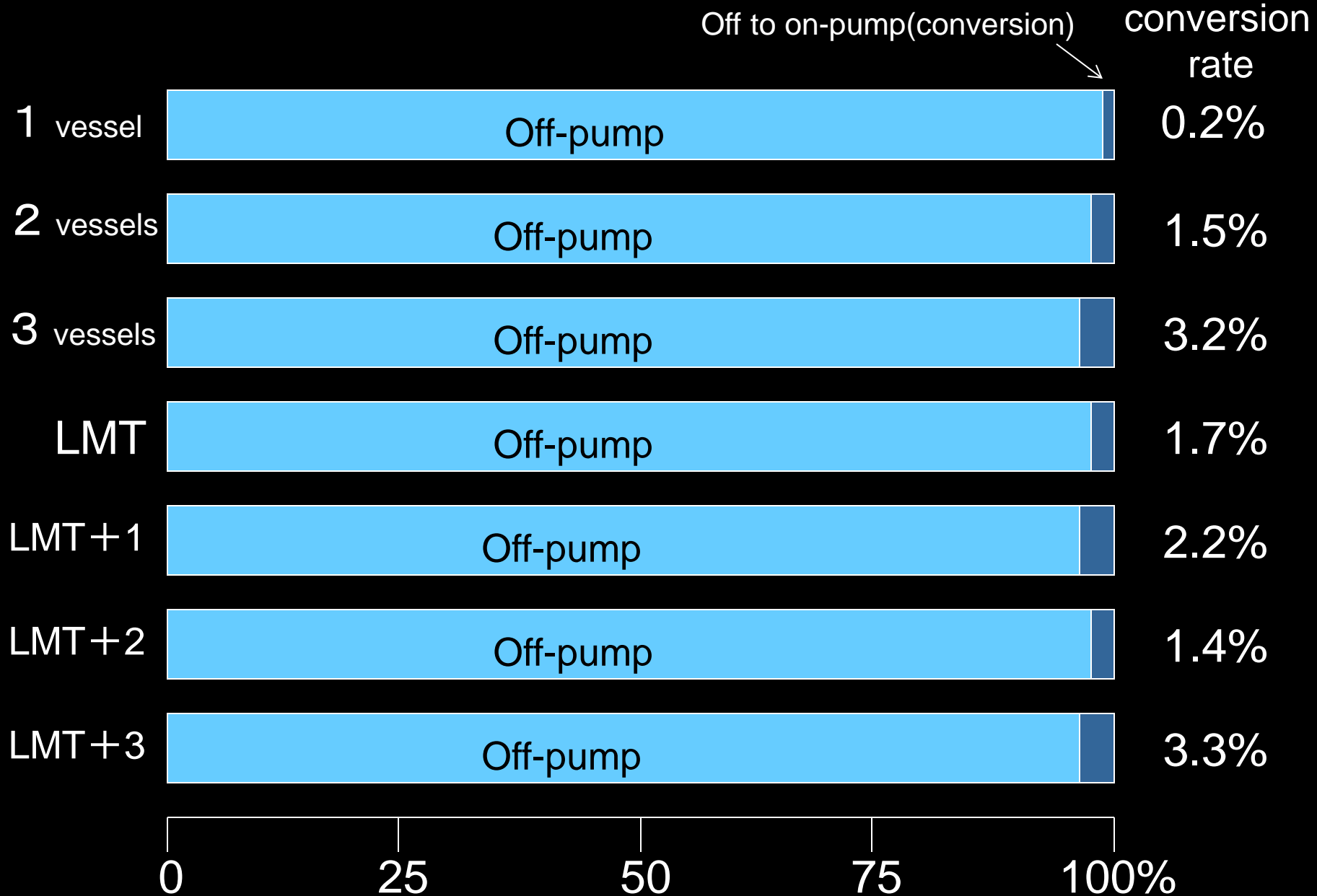
Surgical procedures according to diseased vessels



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

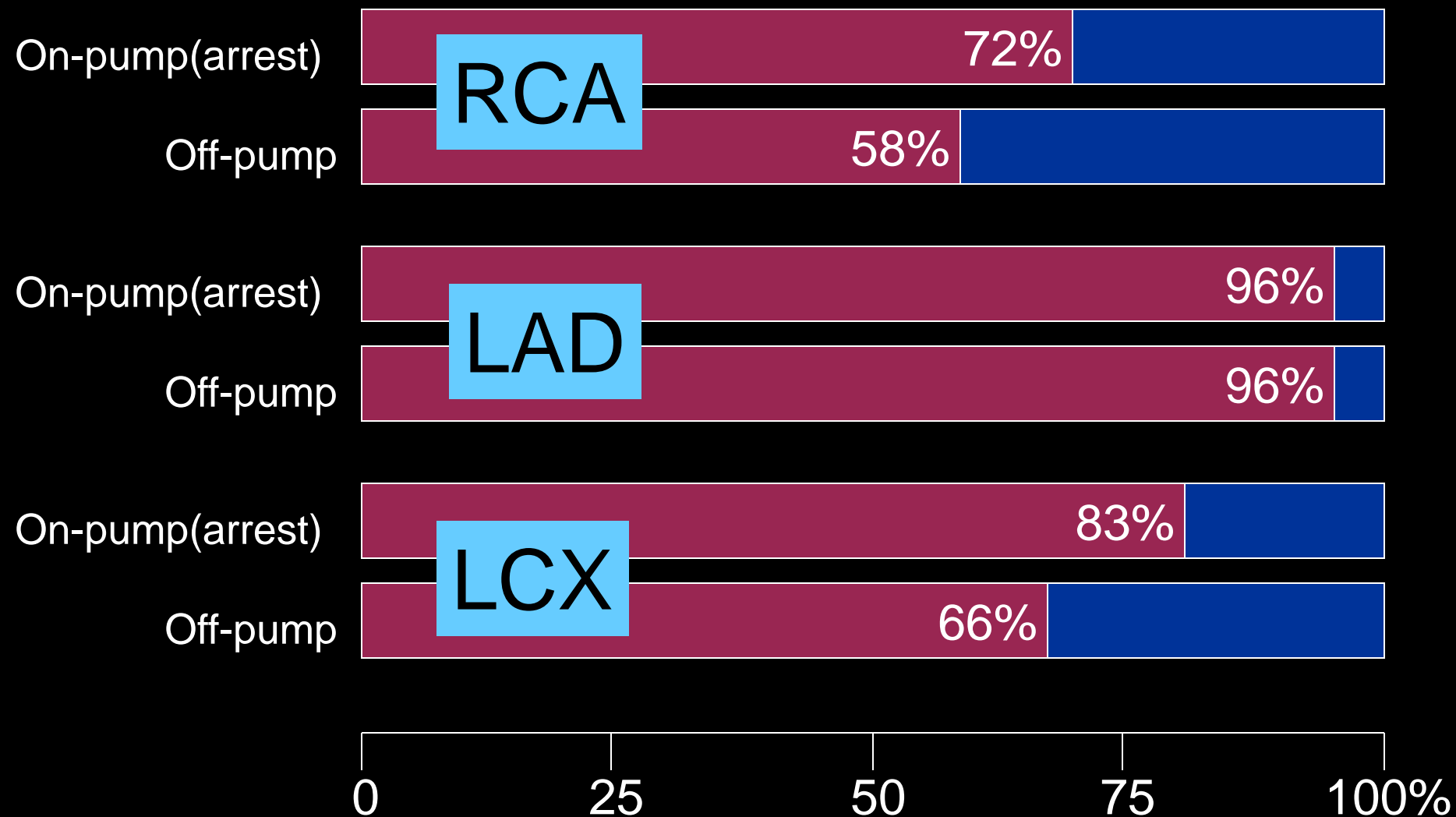


Off to on-pump conversion rate according to diseased vessels (total:2.4%)

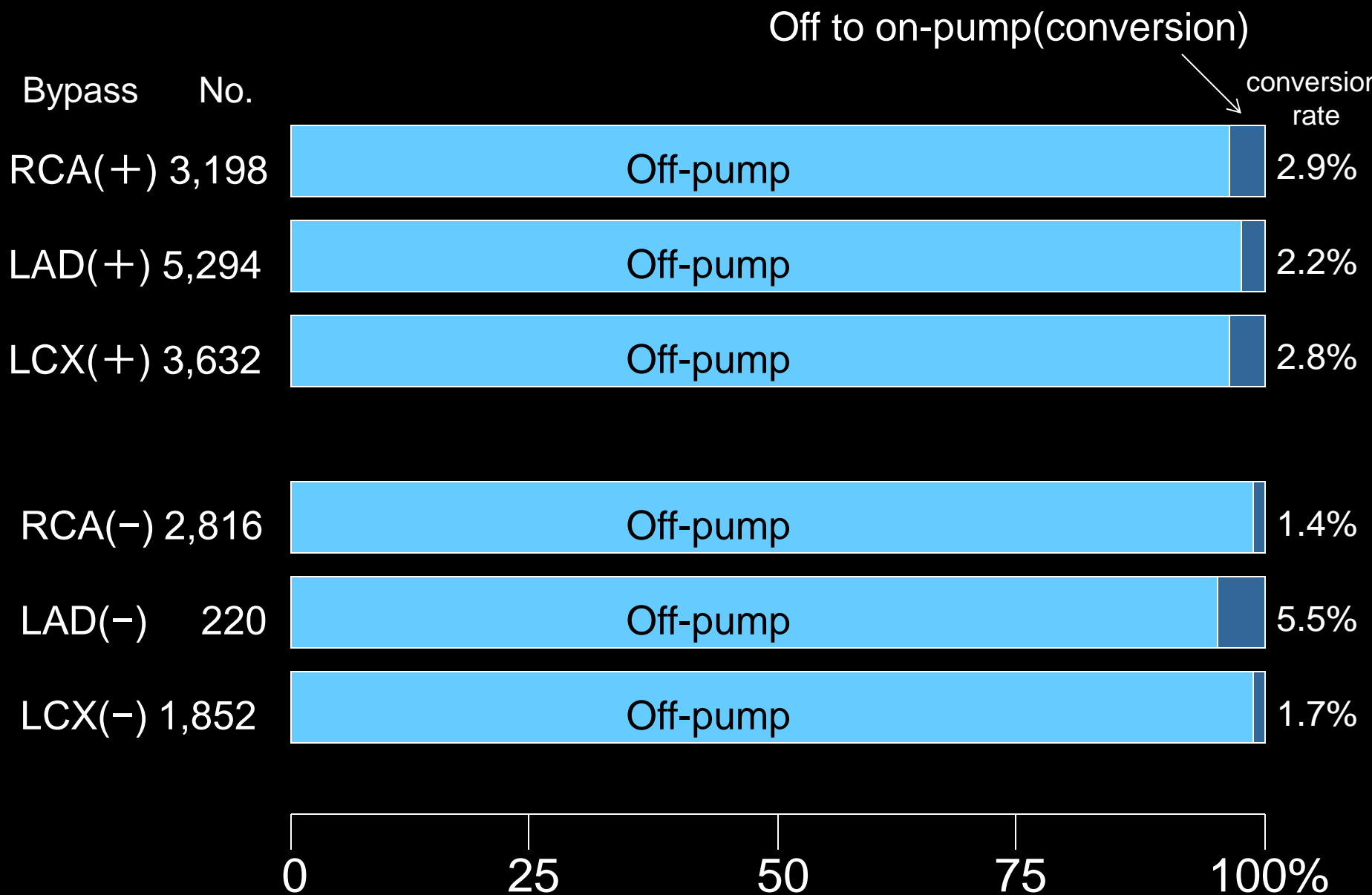


On-pump (arrest) vs. off-pump (Initial elective CABG)

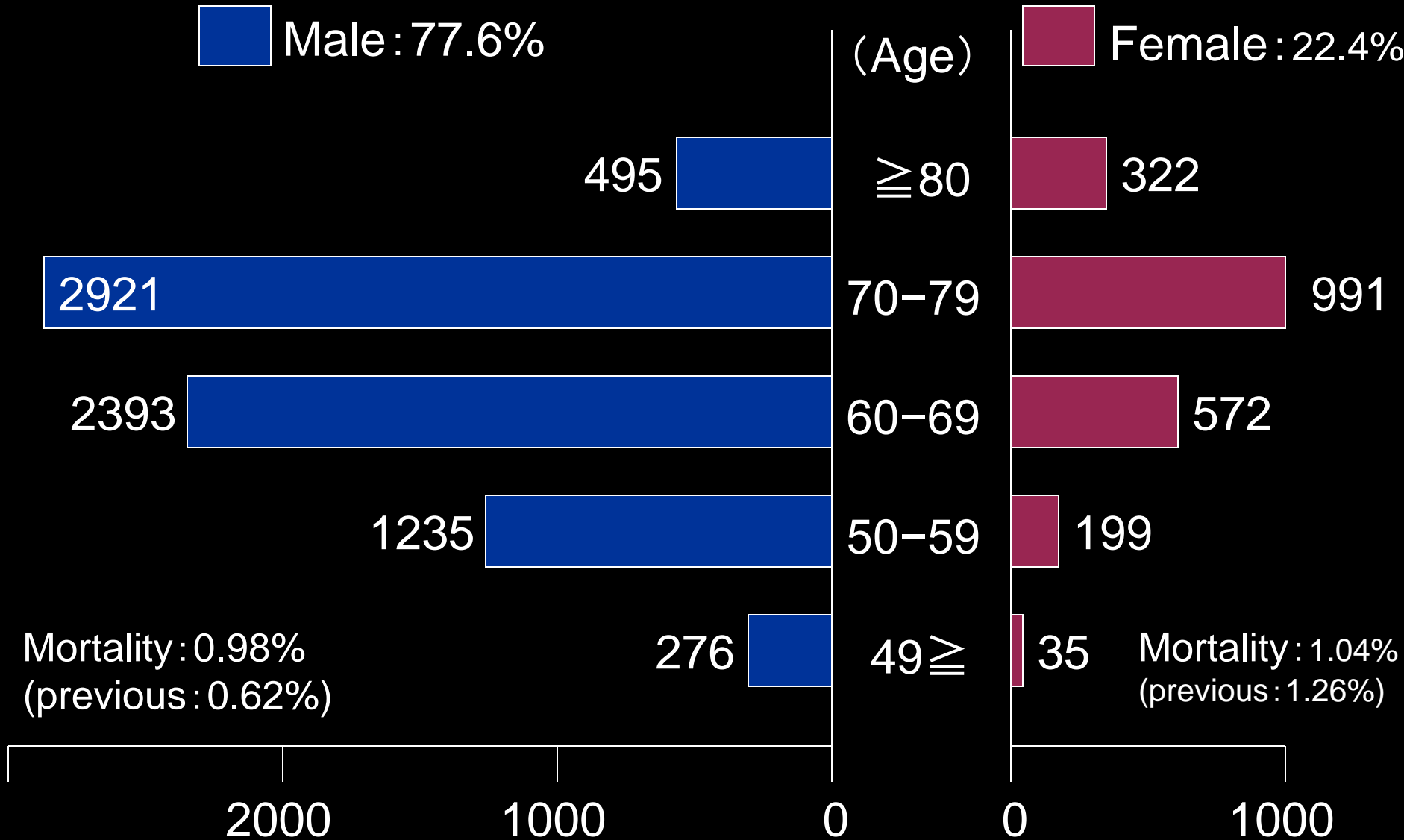
bypass+
bypass-



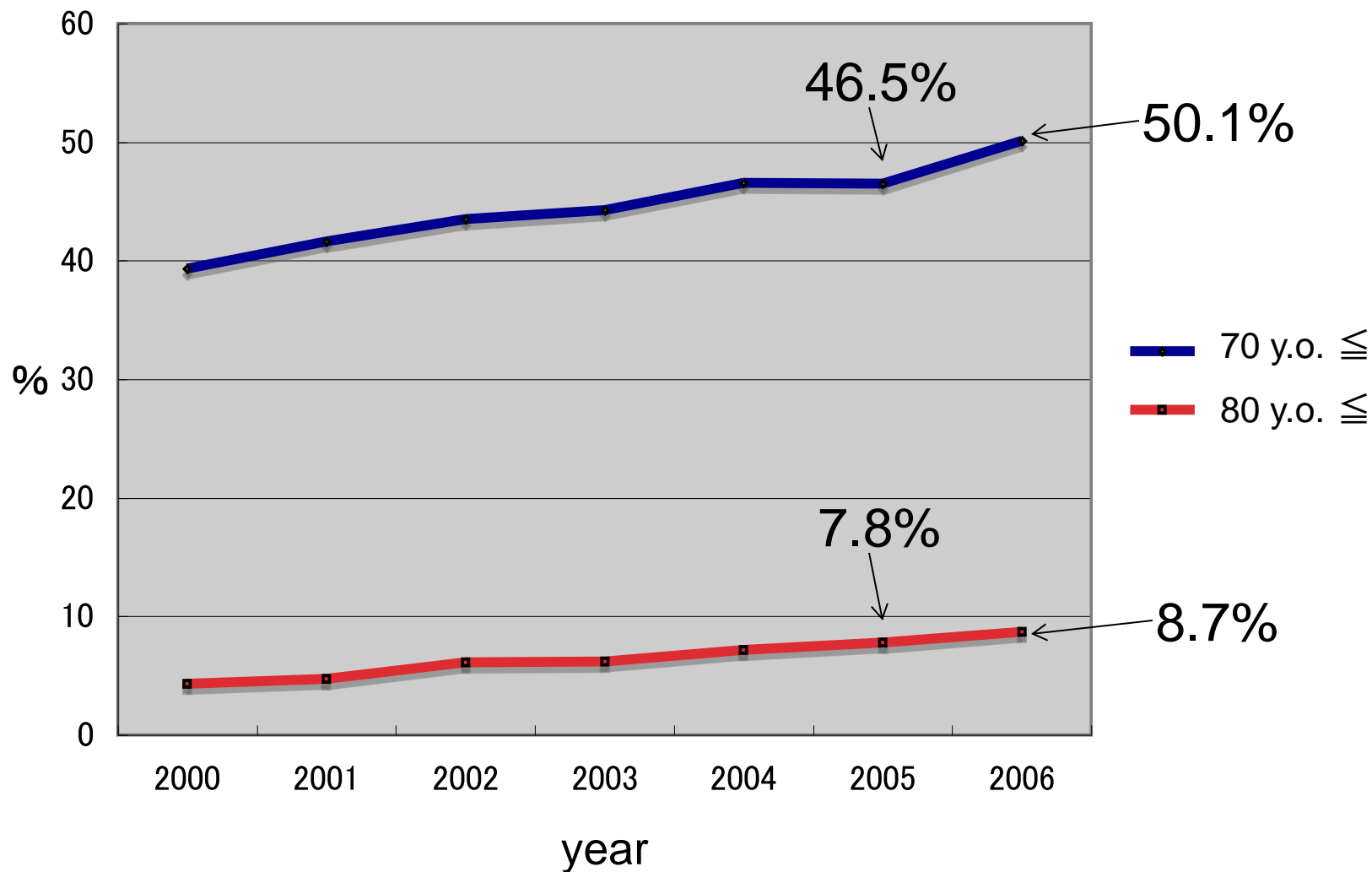
Off-pump vs. off to on-pump conversion (Initial elective CABG)



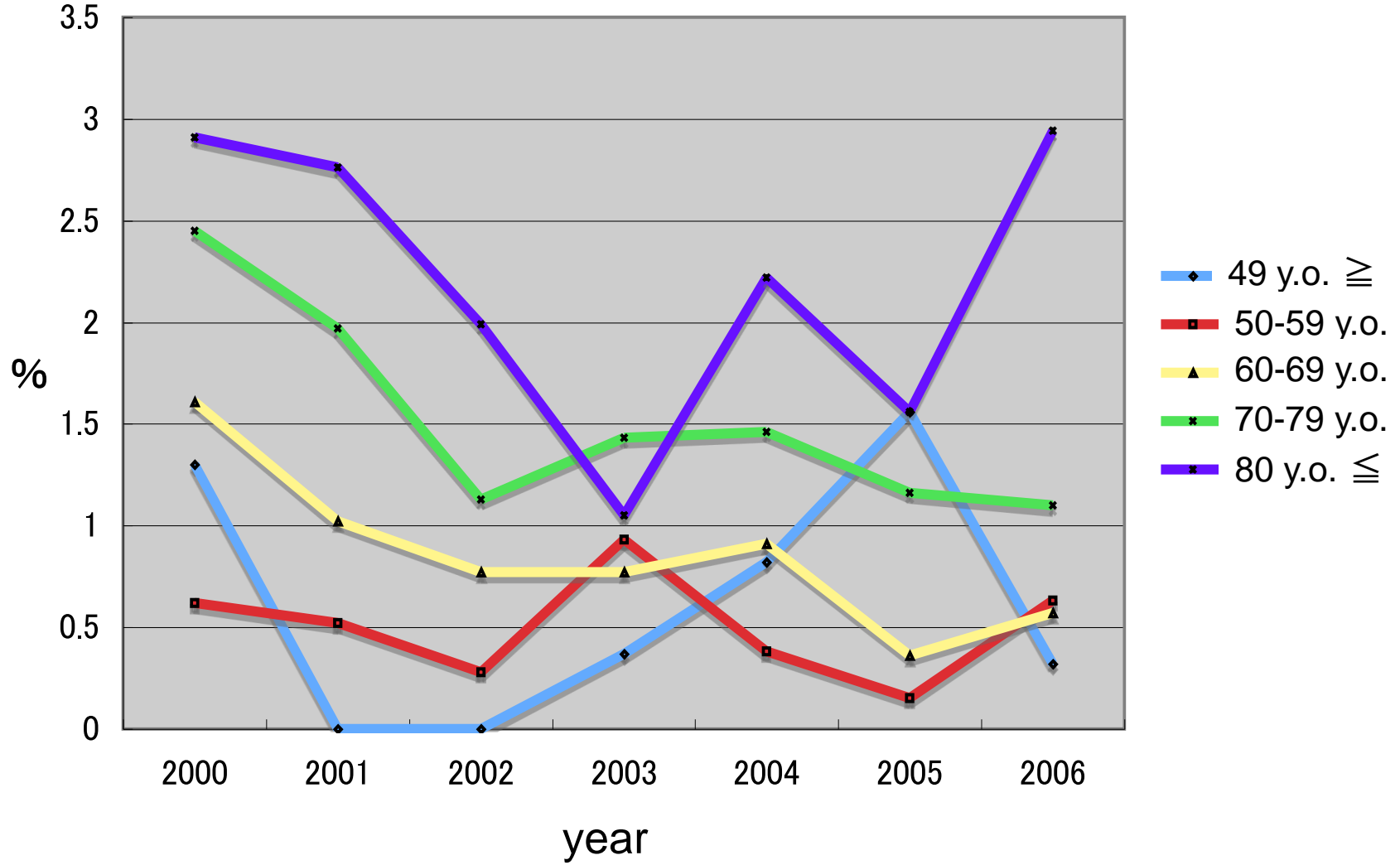
Age distribution (Initial elective cases)



Changes in elderly patients (Initial elective cases)

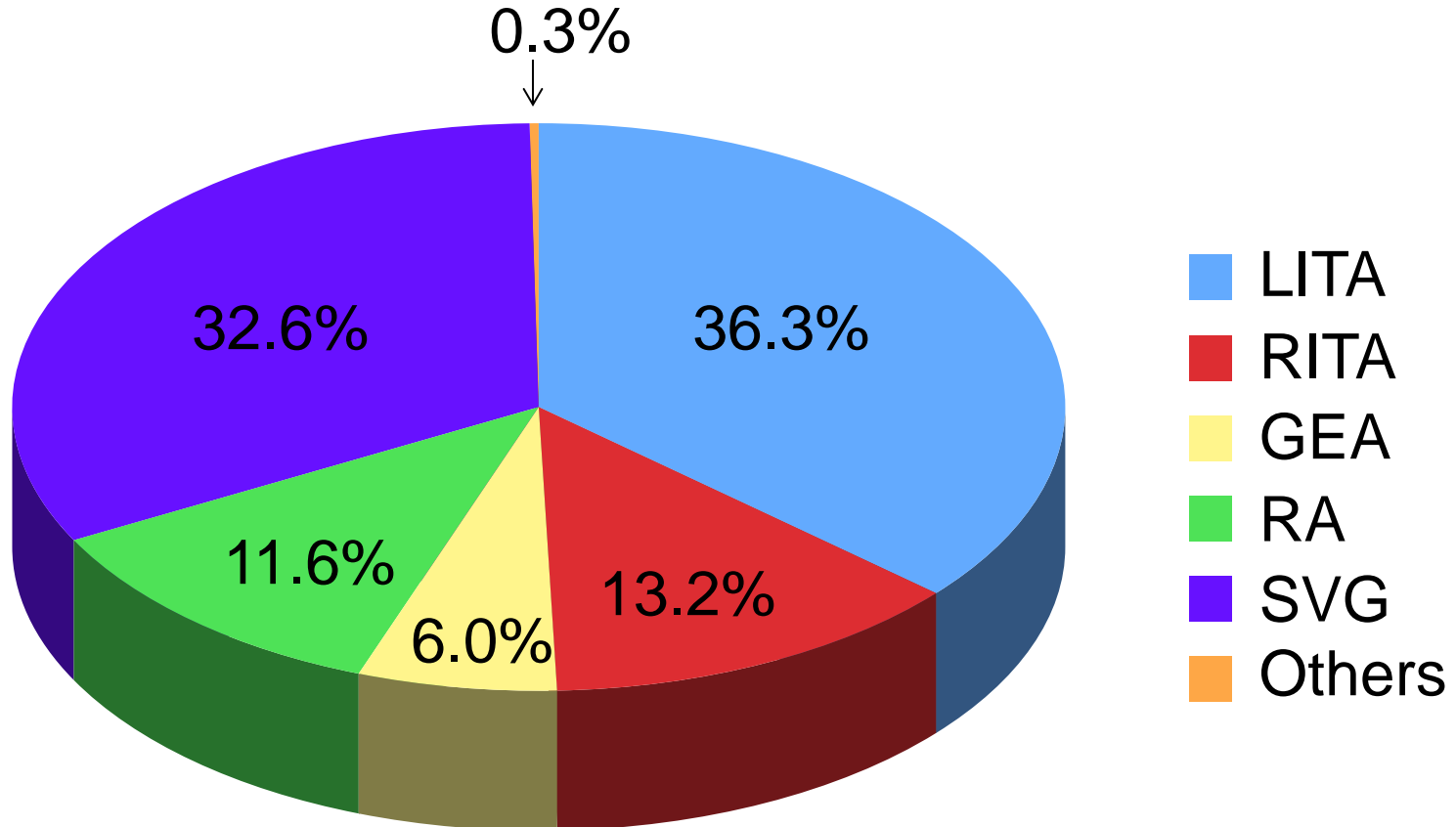


Changes in mortality according to age (Initial elective cases)

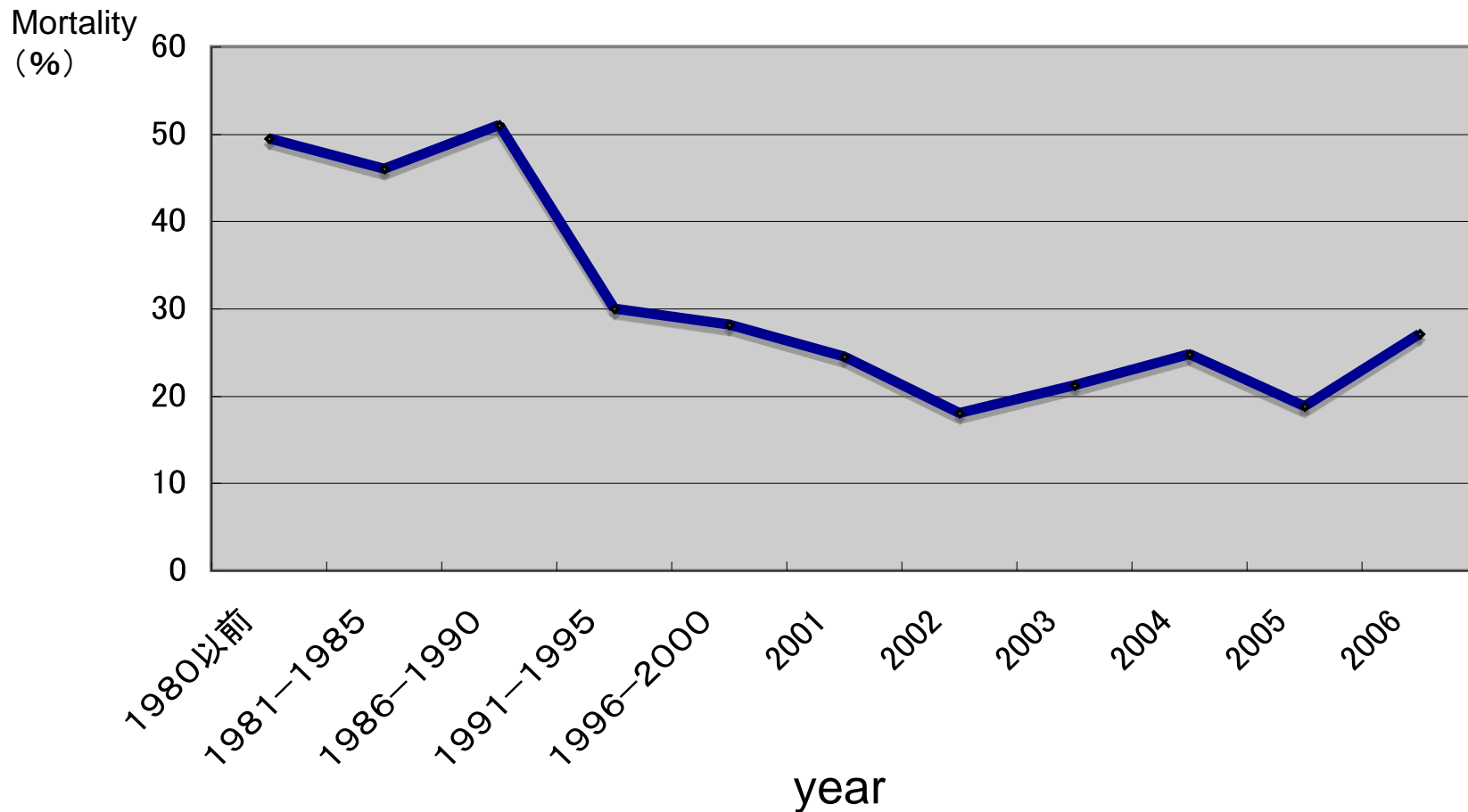


Graft selection

(Total number of grafts : 26,747 grafts)



Changes in mortality of VSP

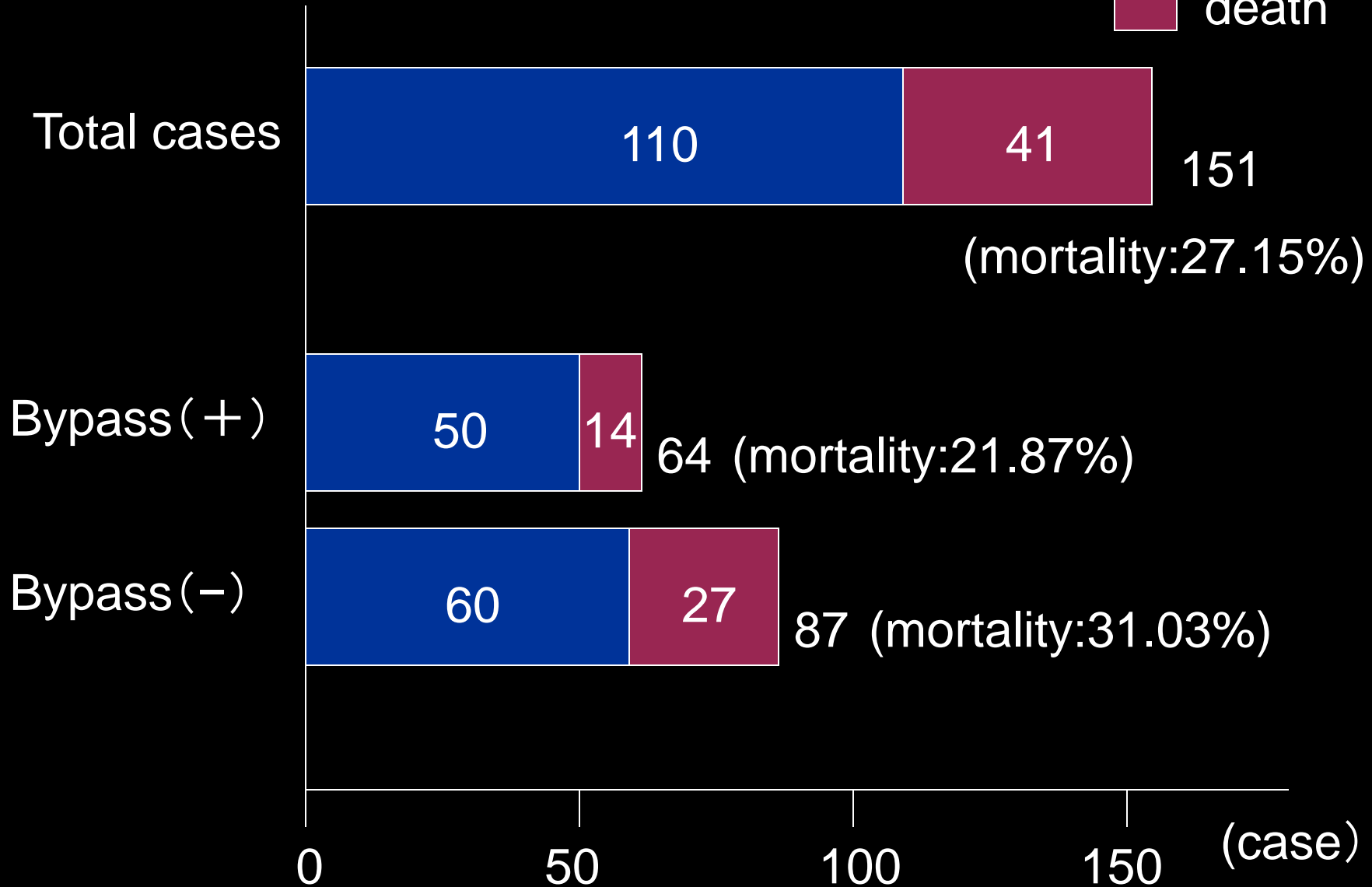


2006;

Total cases: 151、death cases: 41(Mortality: 27.15%)

Results of VSP (1)

alive
death



Results of VSP (2)



Anterior infarction (mortality:28.2%)

Dagett



Komeda

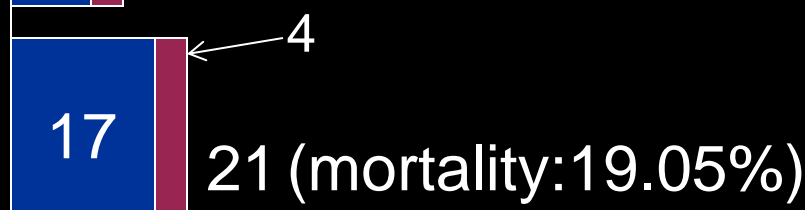


Post-inferior infarction (mortality:23.5%)

Dagett



Komeda



0

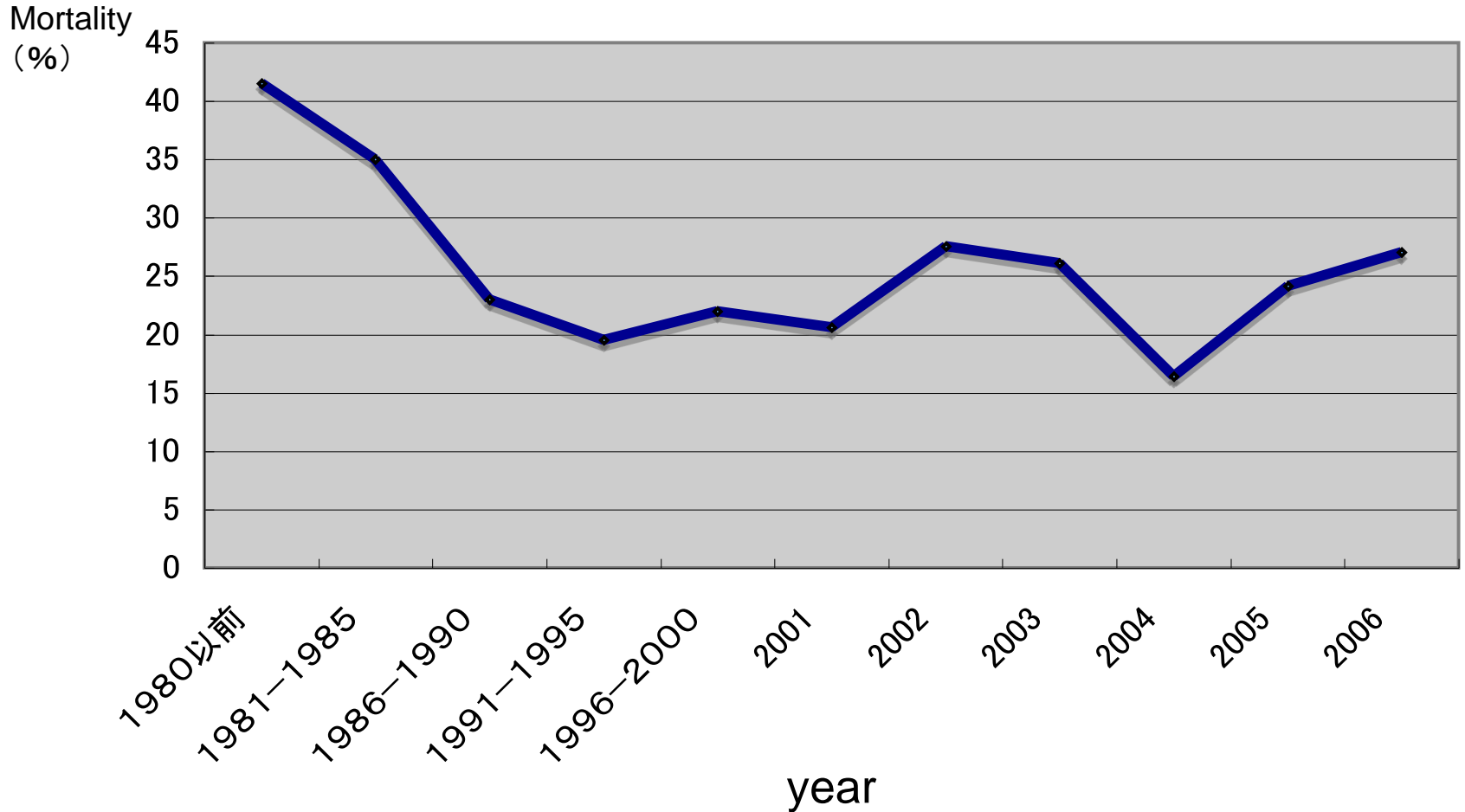
50

100

150

(case)

Changes in mortality of papillary muscle rupture of LV



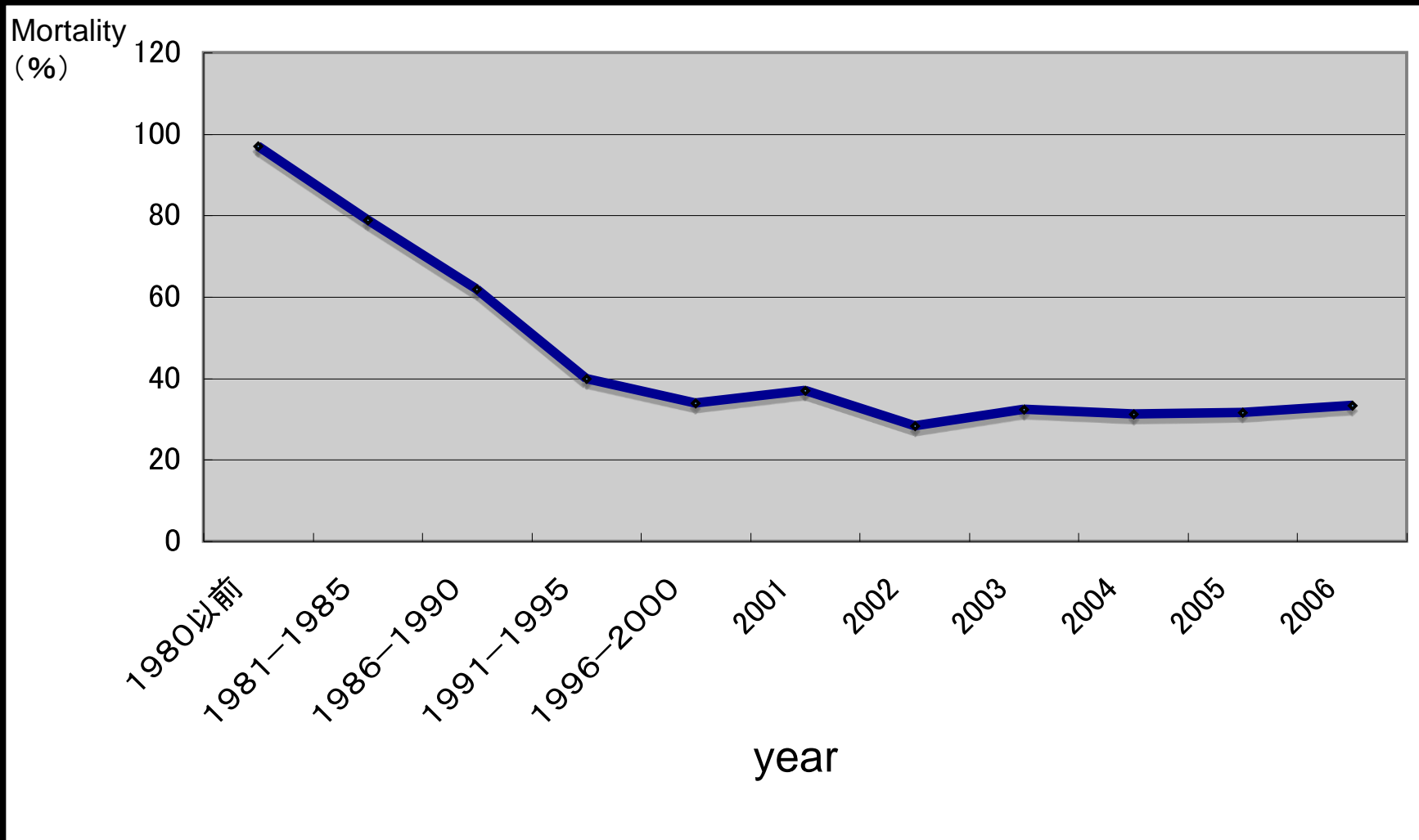
2006;

Total cases: 37、death cases: 10(mortality: 27.03%)

Results of papillary muscle rupture



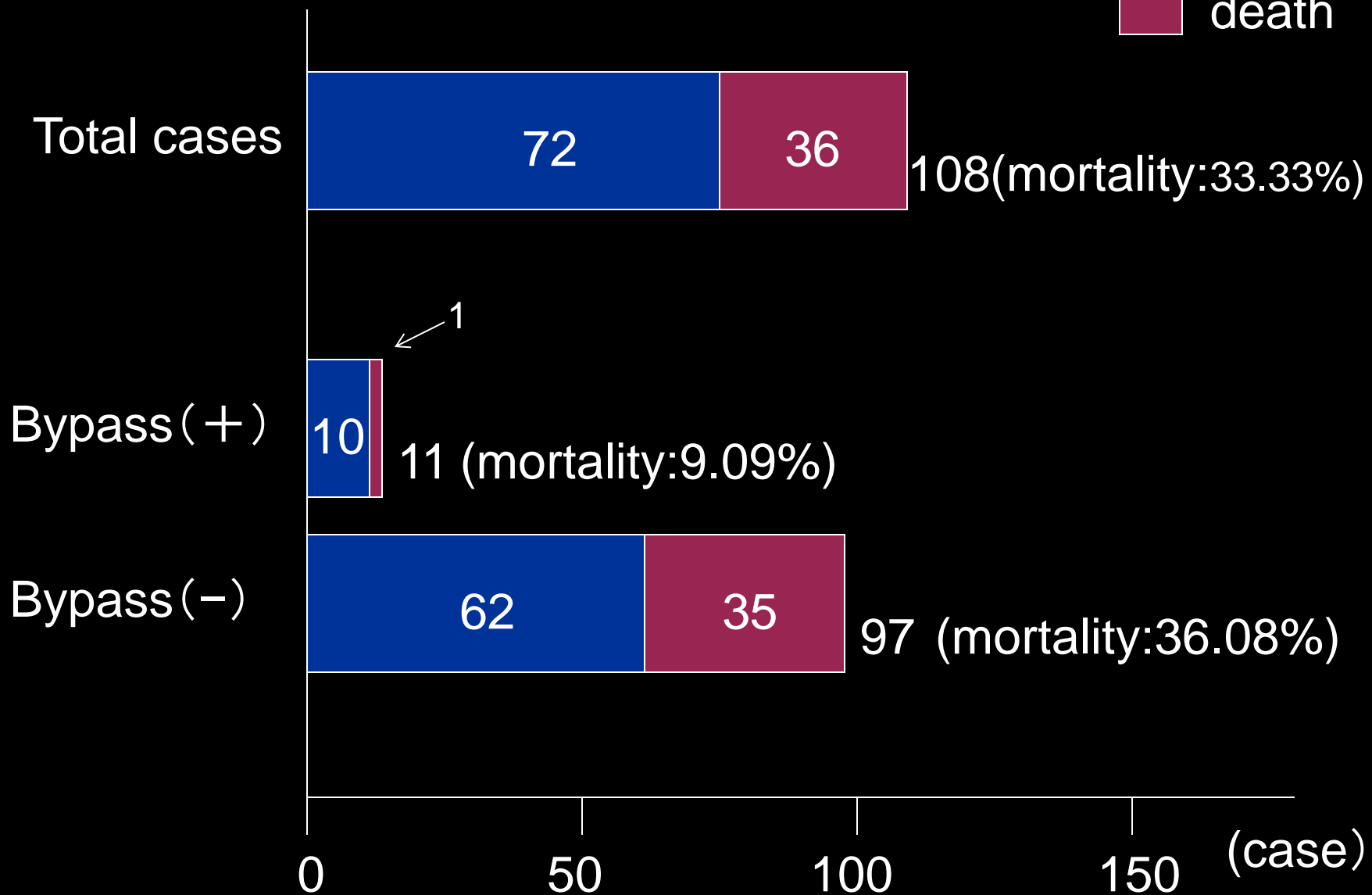
Changes in mortality of cardiac rupture



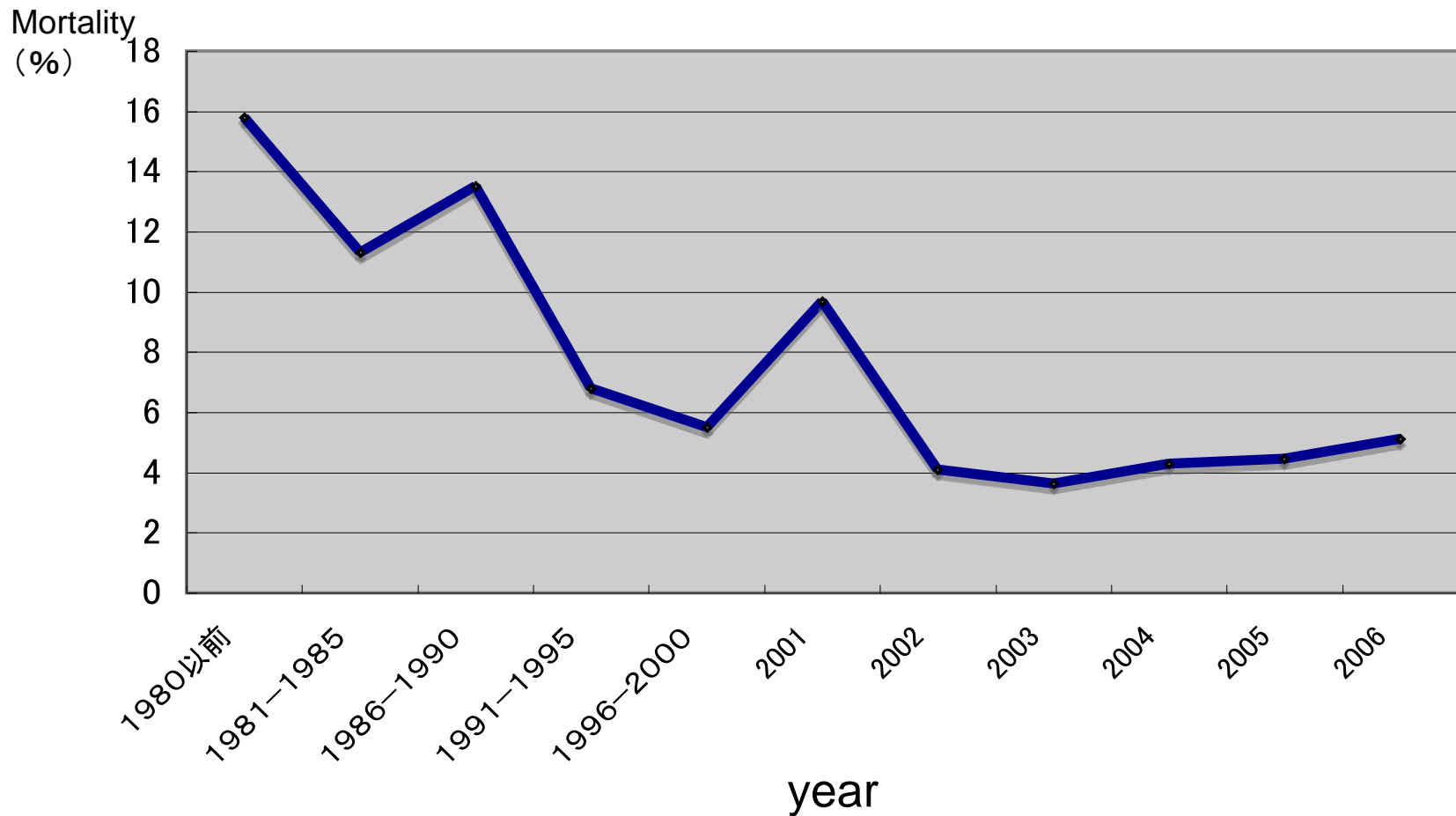
2006;

Total cases : 108、death cases : 36 (mortality : 33.33%)

Results of cardiac rupture



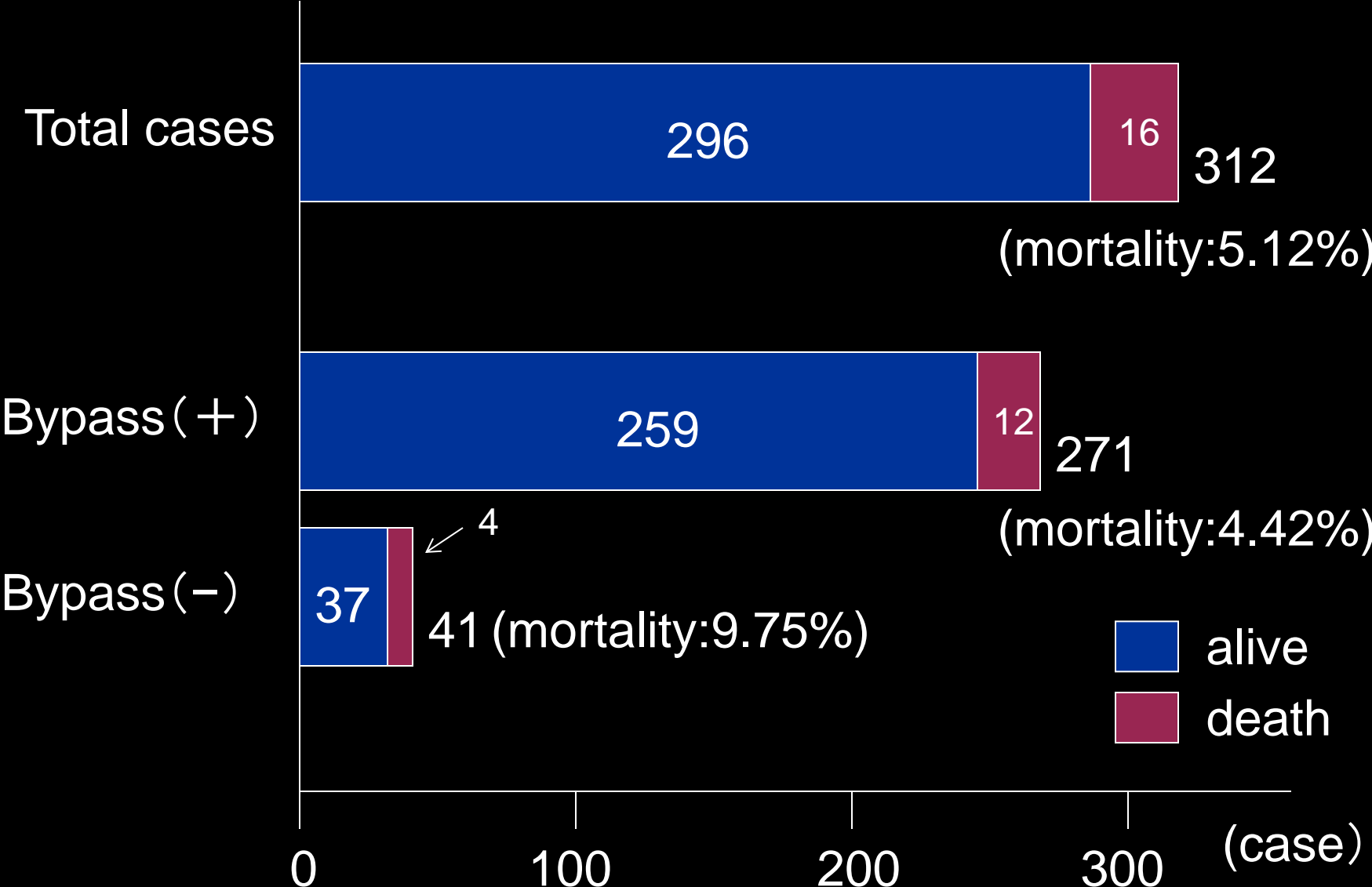
Changes in mortality of left ventricle aneurysm



2006;

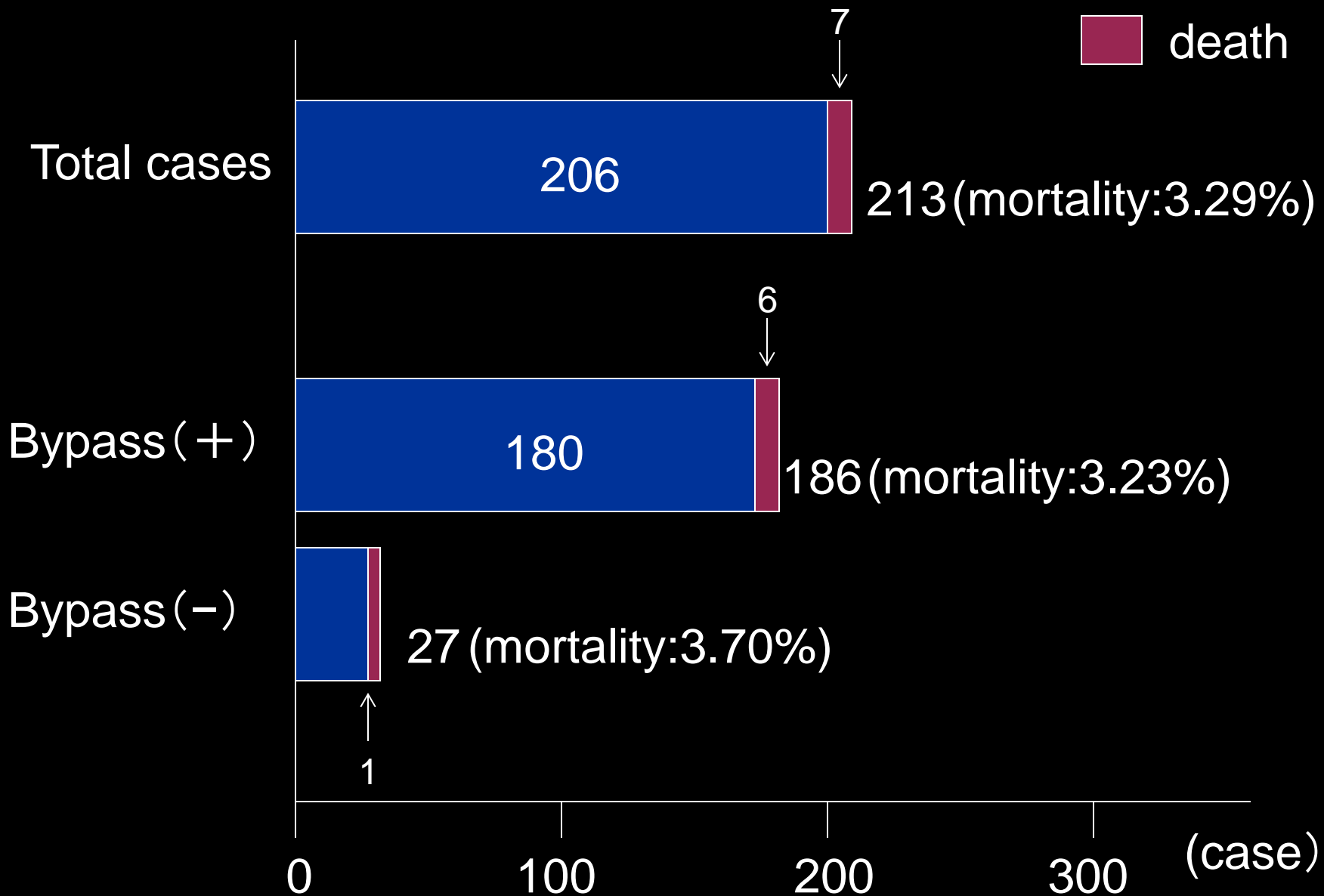
Total cases: 312、death cases 26 (mortality: 5.12%)

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



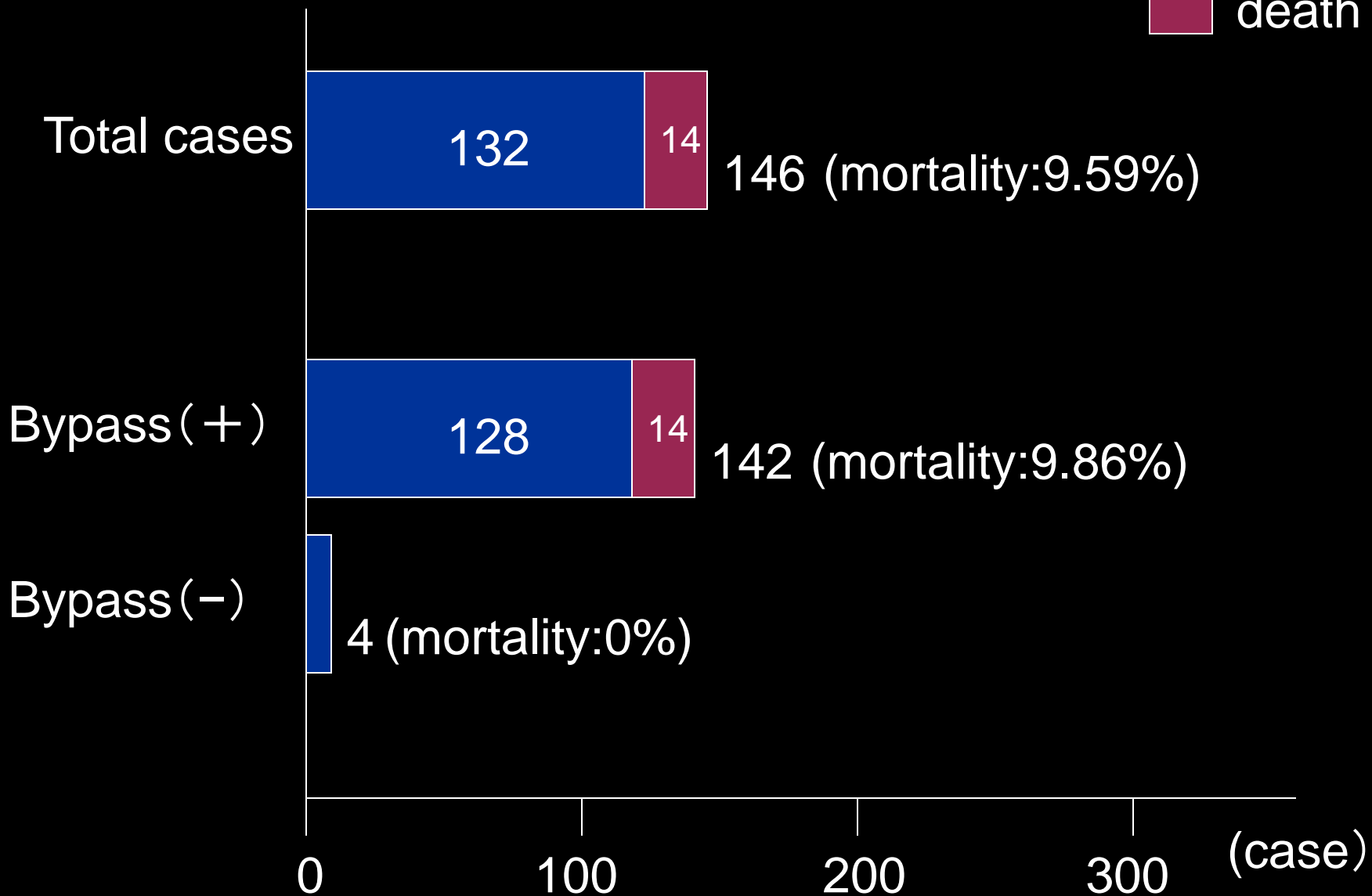
Results of left ventriculectomy

alive
death

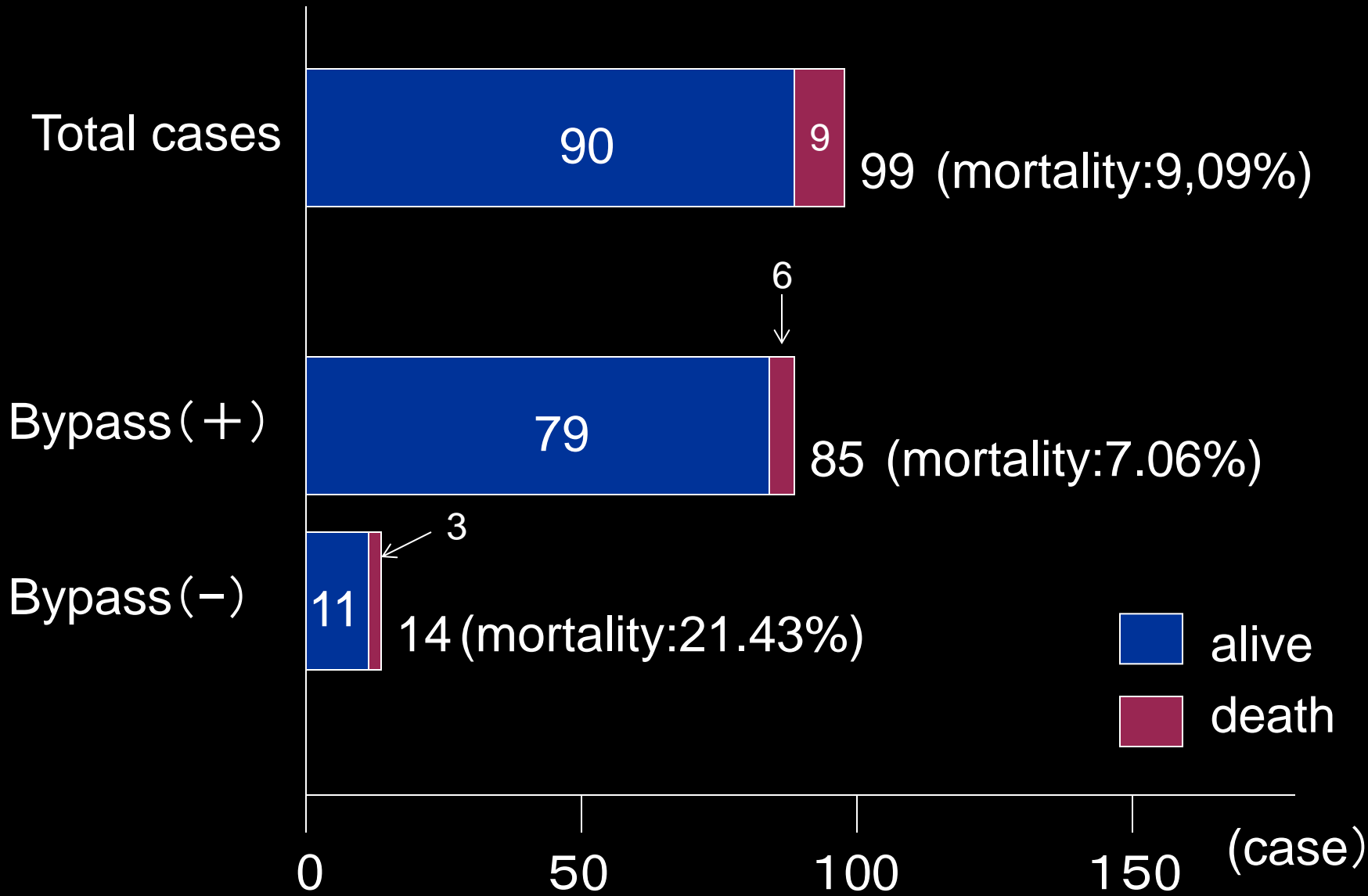


Results of mitral valvuloplasty and replacement against ischemic mitral regurgitation

alive
death



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 1.84%, and 0.98% respectively, indicating still good results.

2. Of all initial elective CABG, 61% cases underwent off-pump CABG (OPCAB), showing high frequency rate. The mortality of OPCAB was 0.91%, showing still good results.

3. The frequency rate of off to on-pump CABG was 2.4%, which was lower than that of previous year, however, the mortality of this procedure was 5.34%, indicating higher than that of previous year.

4. The mean number of grafts for CABG was 2.87, which increased than that of last years, indicating more bypass performed.

Conclusions (2)

6. Of 4 or more bypass surgery, about 50% cases underwent OPCAB.

7. CABG cases have been getting older ; the rate of 70 or more years old was 50%. The surgical results of those cases improved.

6. The frequency use rate of arterial grafts was about 70%, on the other hand, that of vein graft was 30%.

7. As for the results of complications after myocardial infarction, the mortality of those cases has been getting better.