

Coronary artery surgery results 2007, in Japan

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

Yukiyasu Sezai

Coronary artery bypass grafting (CABG), 2007

Total cases : 14,583

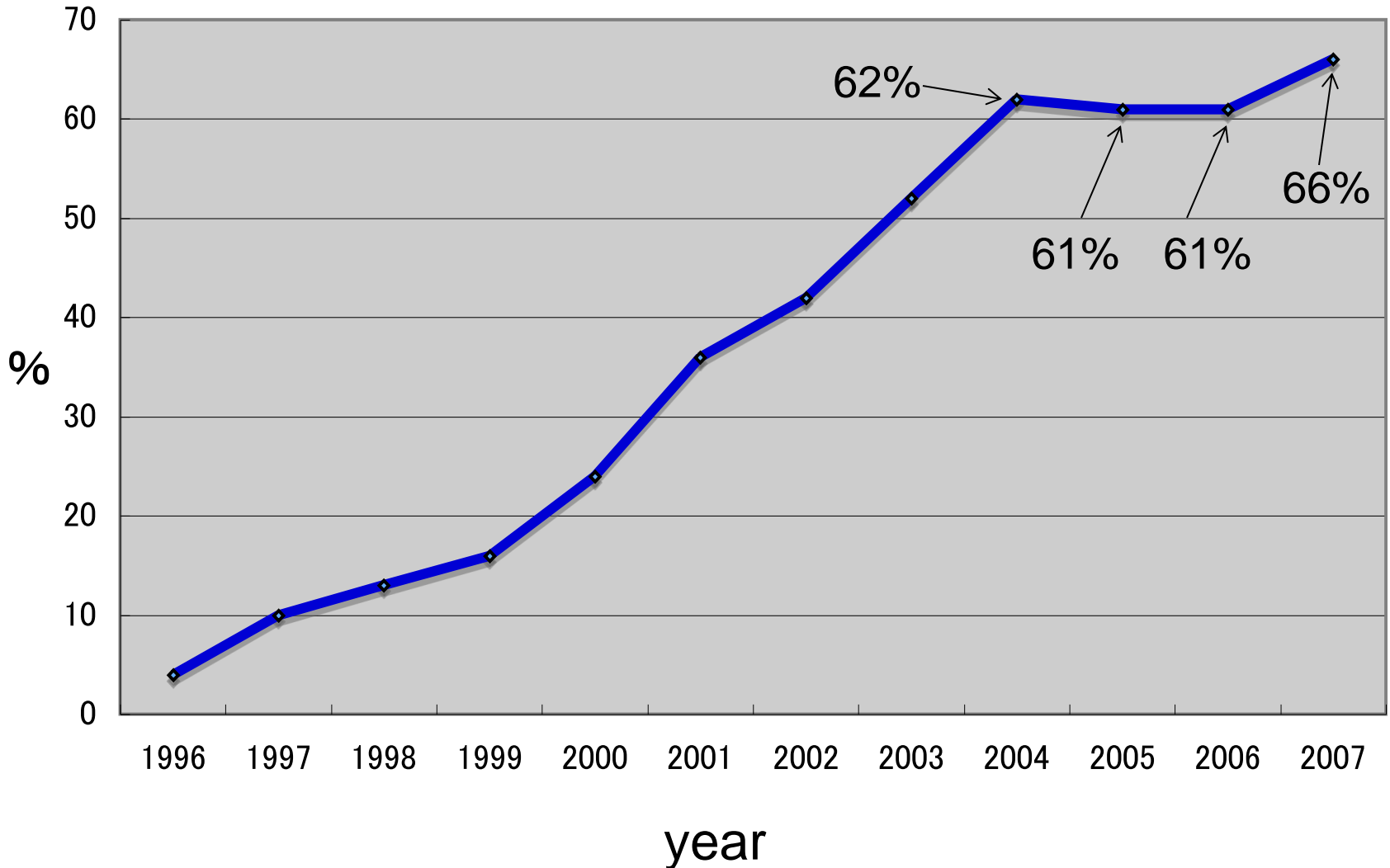
Isolated CABG : 11,583

Concomitant CABG : 3,000

Isolated CABG

| | |
|-------------------------------------|---|
| Initial elective : 9,779 | Extra initial elective : 1,804 |
| Off-pump : 6,503 | Off-pump : |
| 952 On-pump : 3,275 | On-pump : |
| 852 | |
| (Off-pump rate : 60%) | (Off-pump rate : 53%) |
| (previous year : 61%) | (previous year : 49%) |

Changes in OPCAB frequency rate of initial elective CABG



Total cases of initial elective :9,779(100%)

| | |
|----------------------------------|----------------------|
| On-pump (cardiac arrest) | :2,432(24.8%) |
| On-pump (cardiac beating) | : 843(8.6%) |
| Off-pump (total cases) | :6,504(66.5%) |
| Off-pump (complete) | :6,315 |
| On-pump (convert) | : 189 |

OPCAB complete rate :97.1%

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

Mortality of isolated CABG:1.78%
(previous year:1.84%)

Mortality of initial elective CABG:0.97%
(previous
year:0.98%)

On-pump (cardiac arrest) :1.39%

On-pump (cardiac beating) :1.54%

Off-pump (total cases) :0.74%

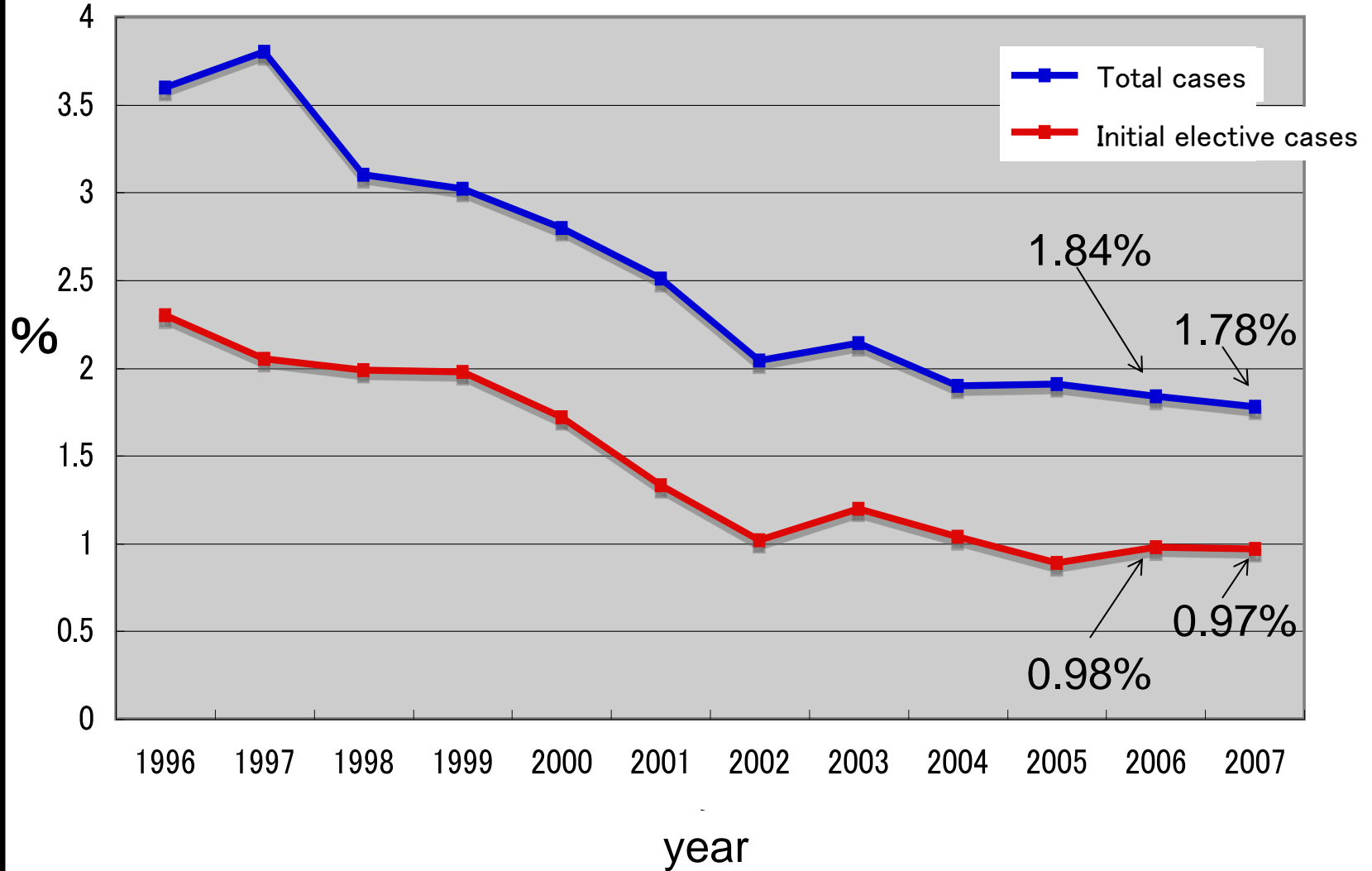
Off-pump (complete) :**0.65%**

(previous year:0.91%)

On to on-pump (convert) :**3.70%**

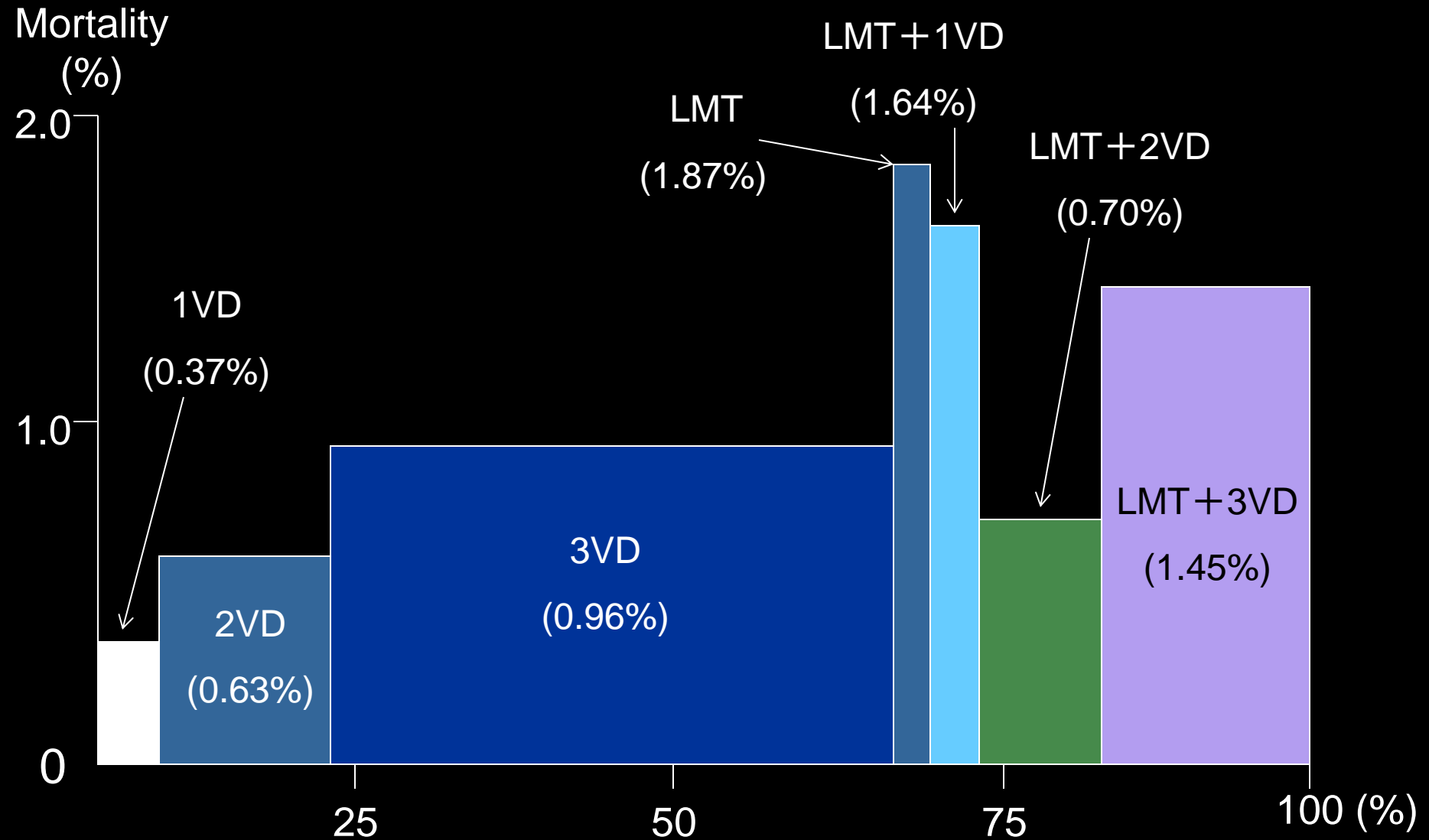
(previous year:5.34%)

Changes in mortality of CABG



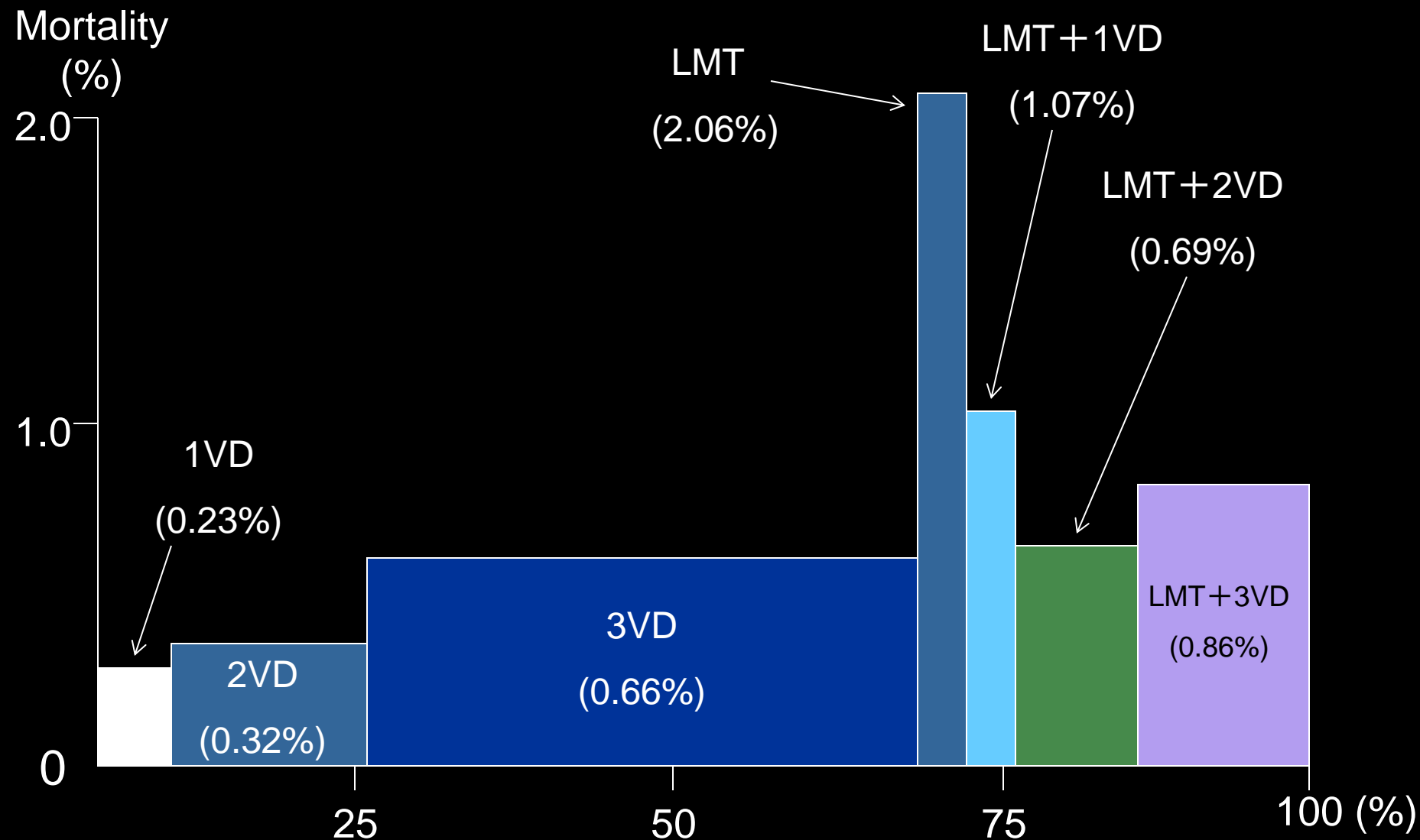
Surgical results according to diseased vessels

(Initial elective cases : 9,779, mortality:0.97%)



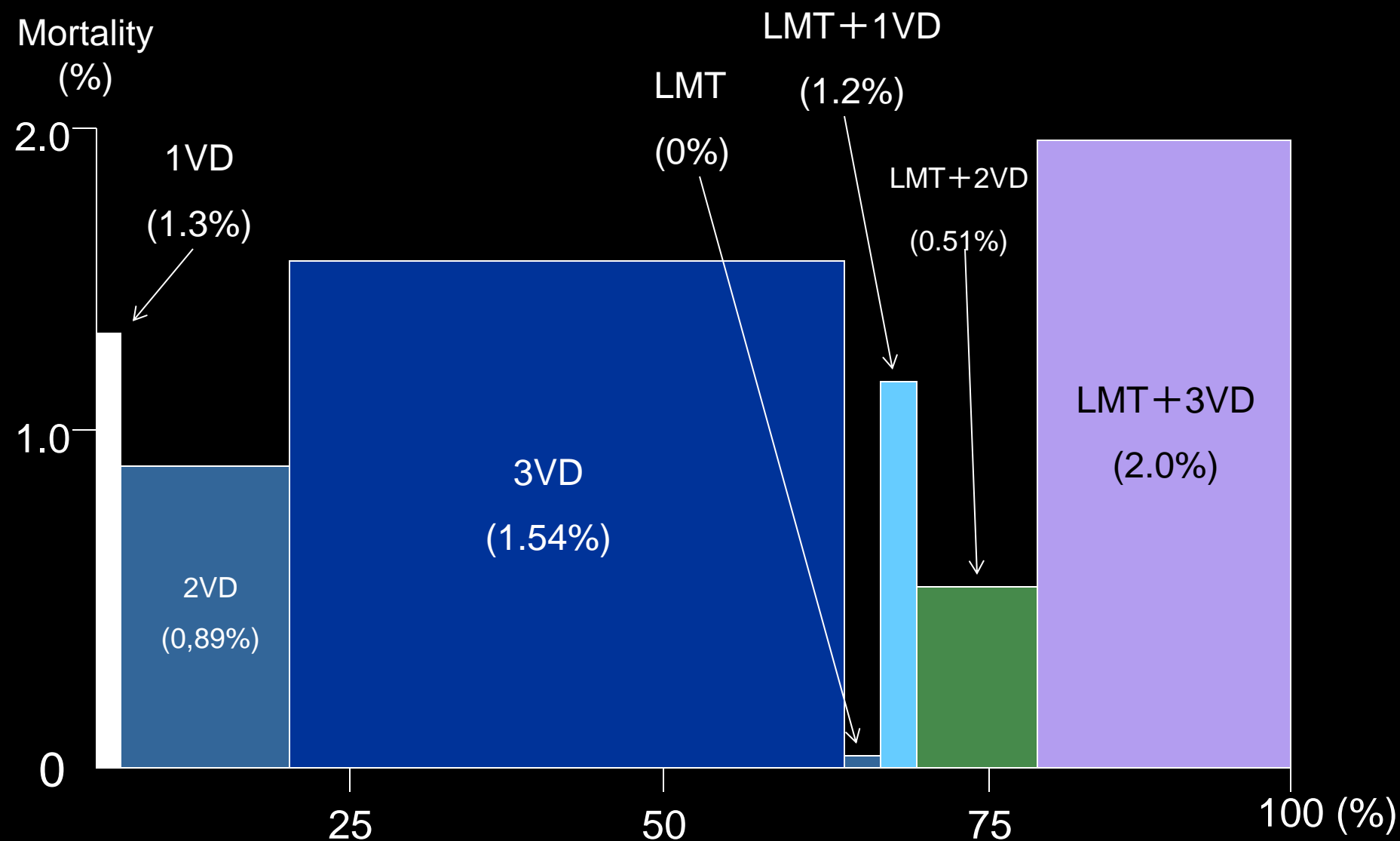
Surgical results according to diseased vessels

(Initial elective off-pump (complete): 6,315, mortality:0.65%)



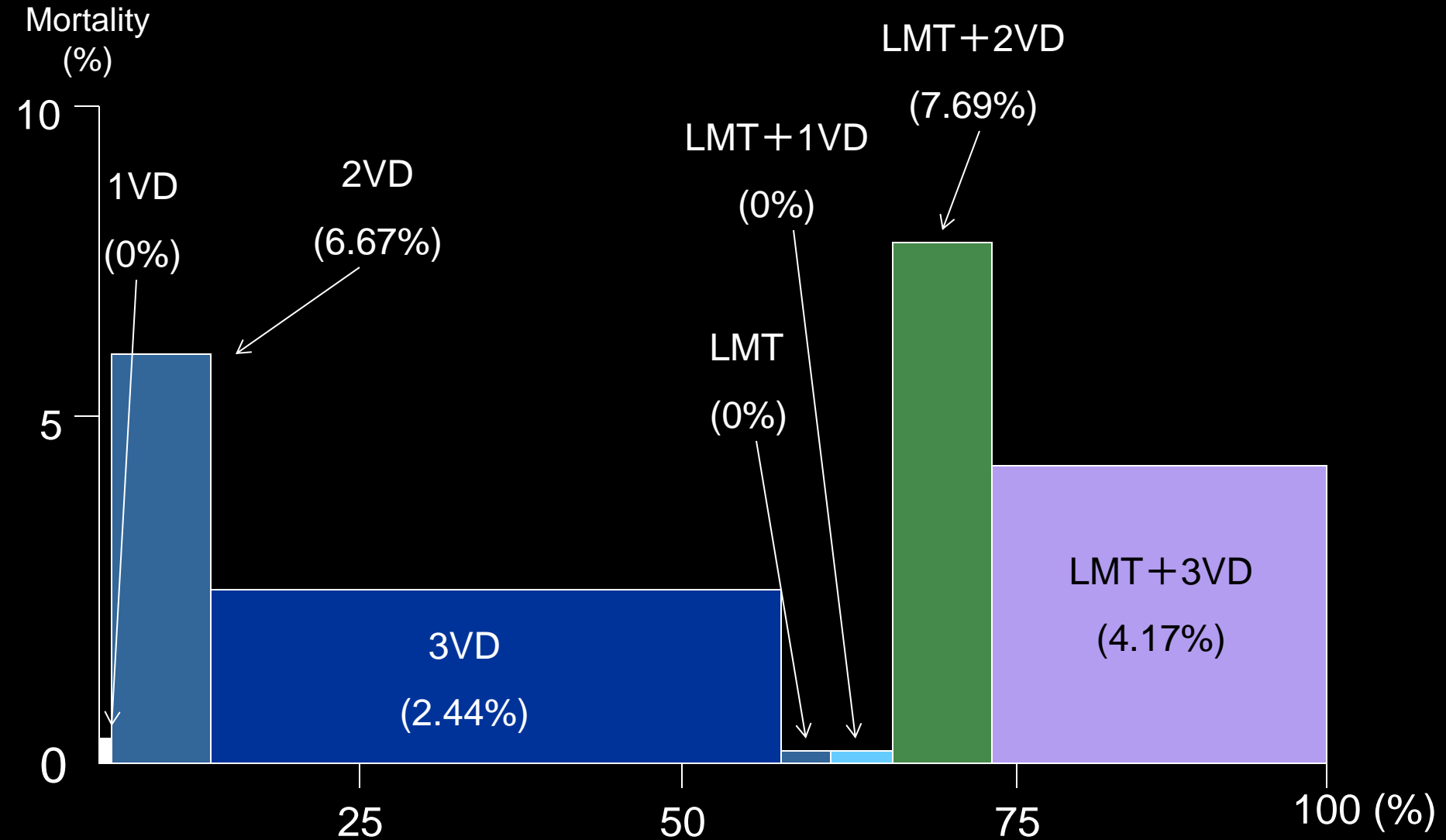
Surgical results according to diseased vessels

(Initial elective on-pump (arrest): 2,432, mortality: 1.39%)



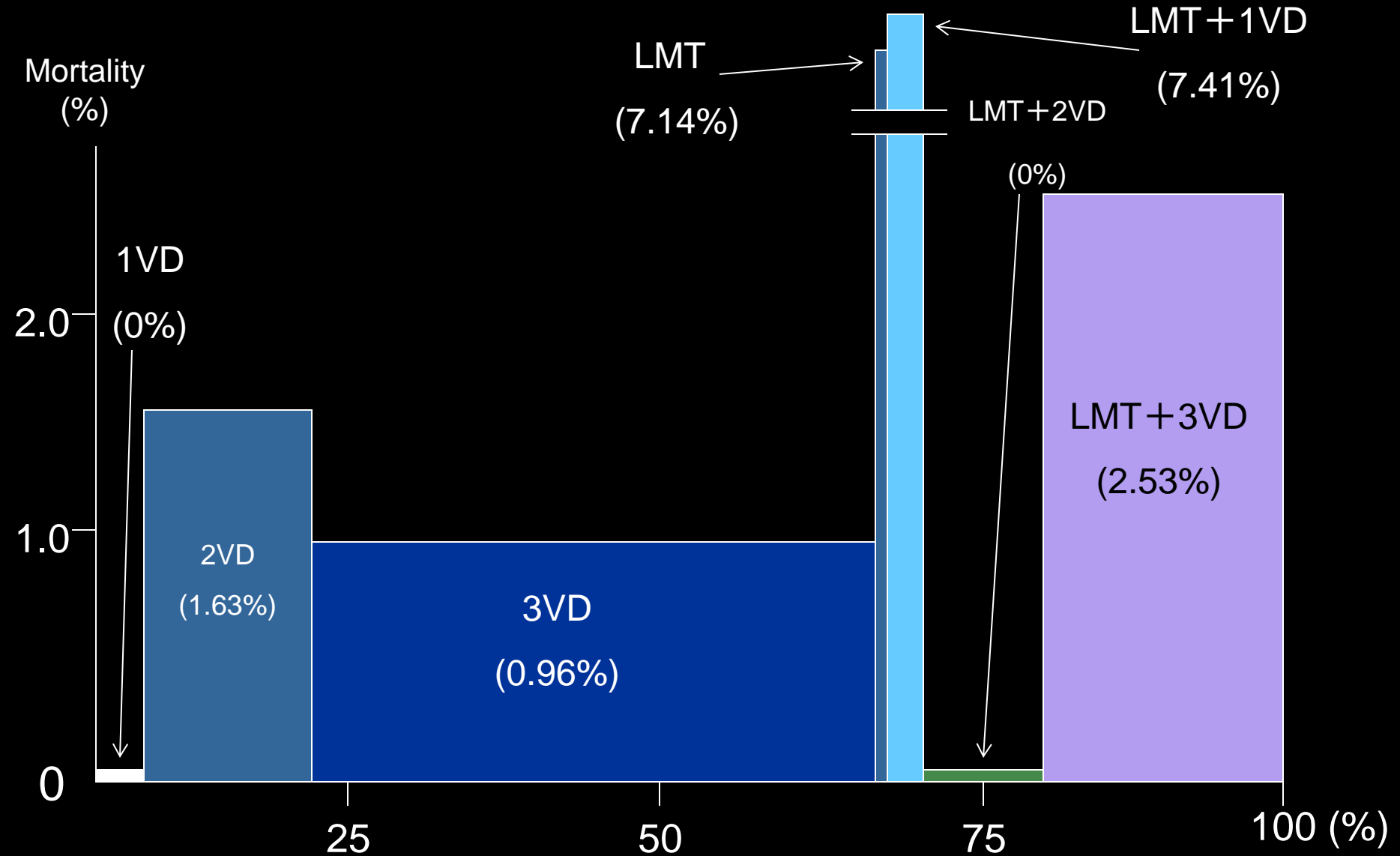
Surgical results according to diseased vessels

(Initial elective off to on-pump (conversion): 189, mortality:3.70%)



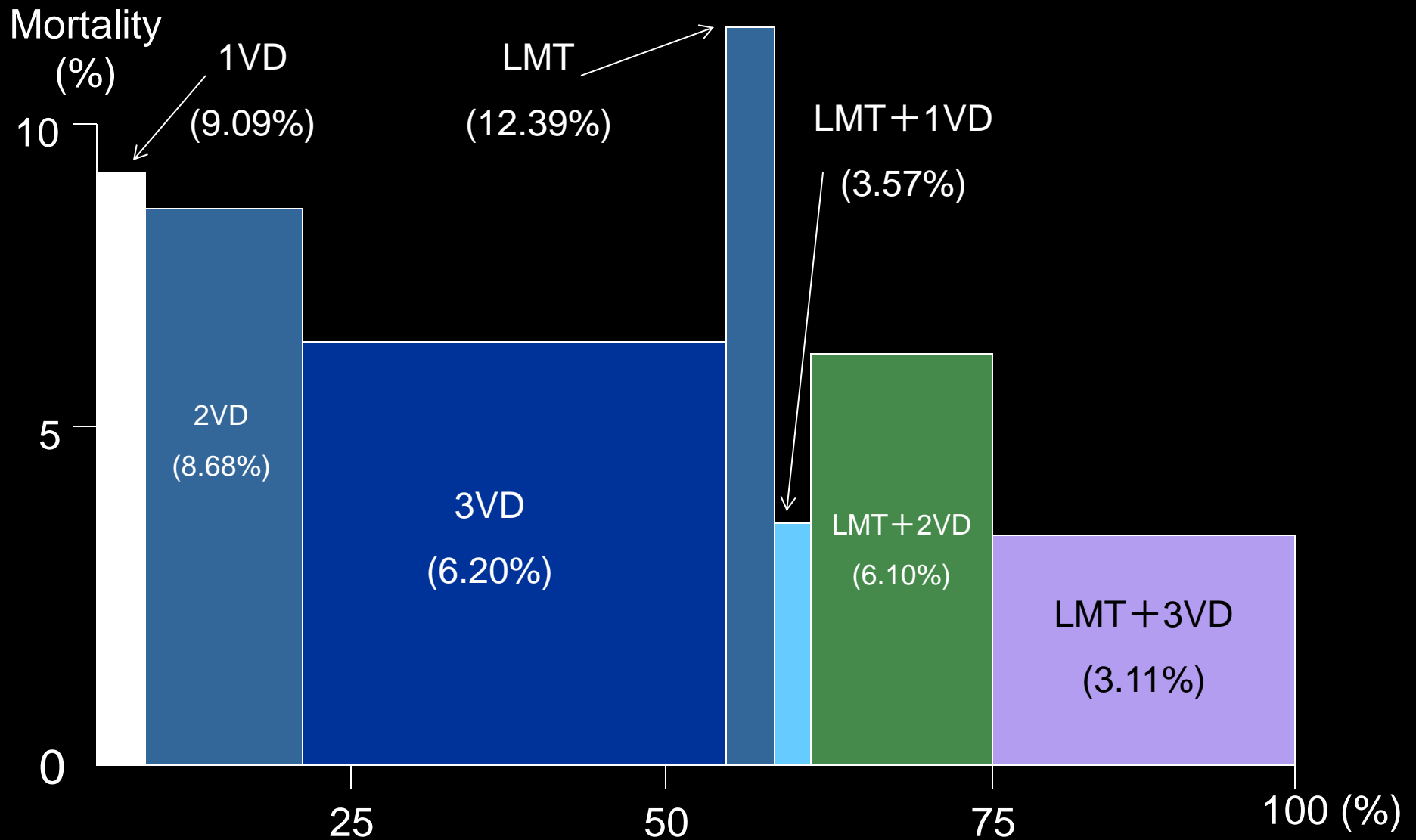
Surgical results according to diseased vessels

(Initial elective on-pump (beating): 843, mortality: 1.54%)



Surgical results according to diseased vessels

(Extra initial elective cases: 1,804, mortality:6.21%)



Surgical results according to procedures

(**Except initial elective cases** : 1,804, mortality:6.21%)

Mortality
(%)

10

5

0

25

50

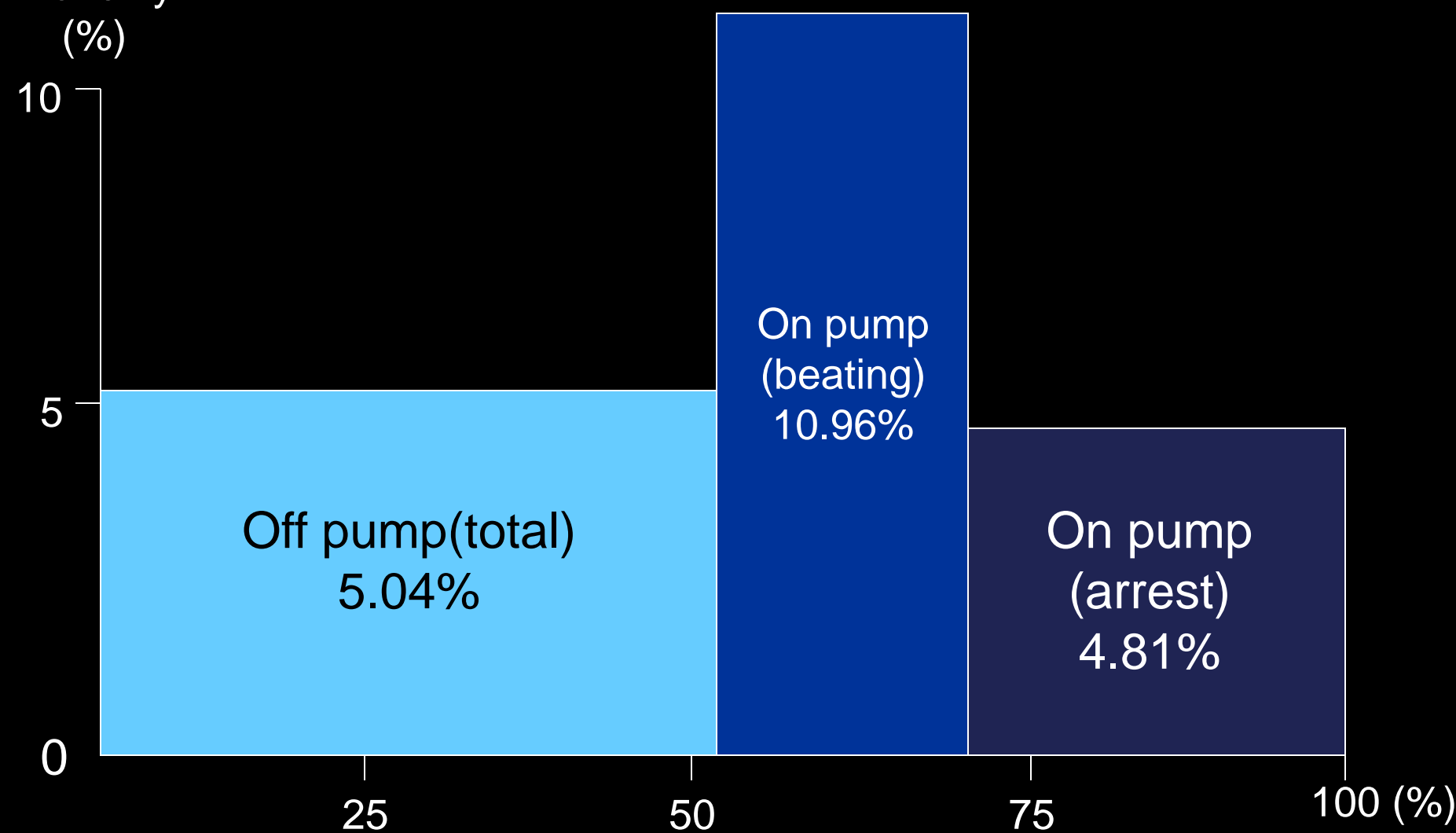
75

100 (%)

Off pump(total)
5.04%

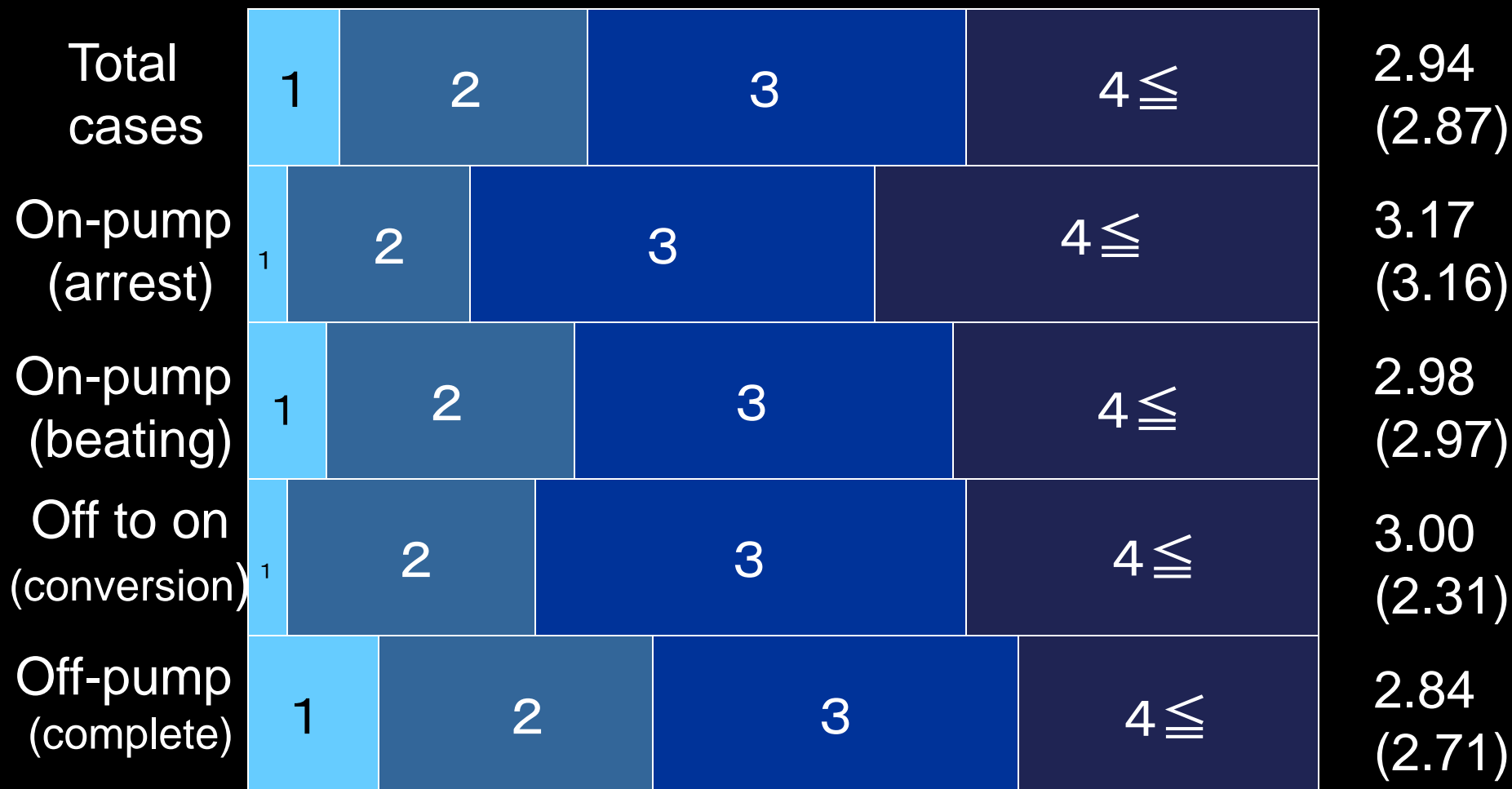
On pump
(beating)
10.96%

On pump
(arrest)
4.81%



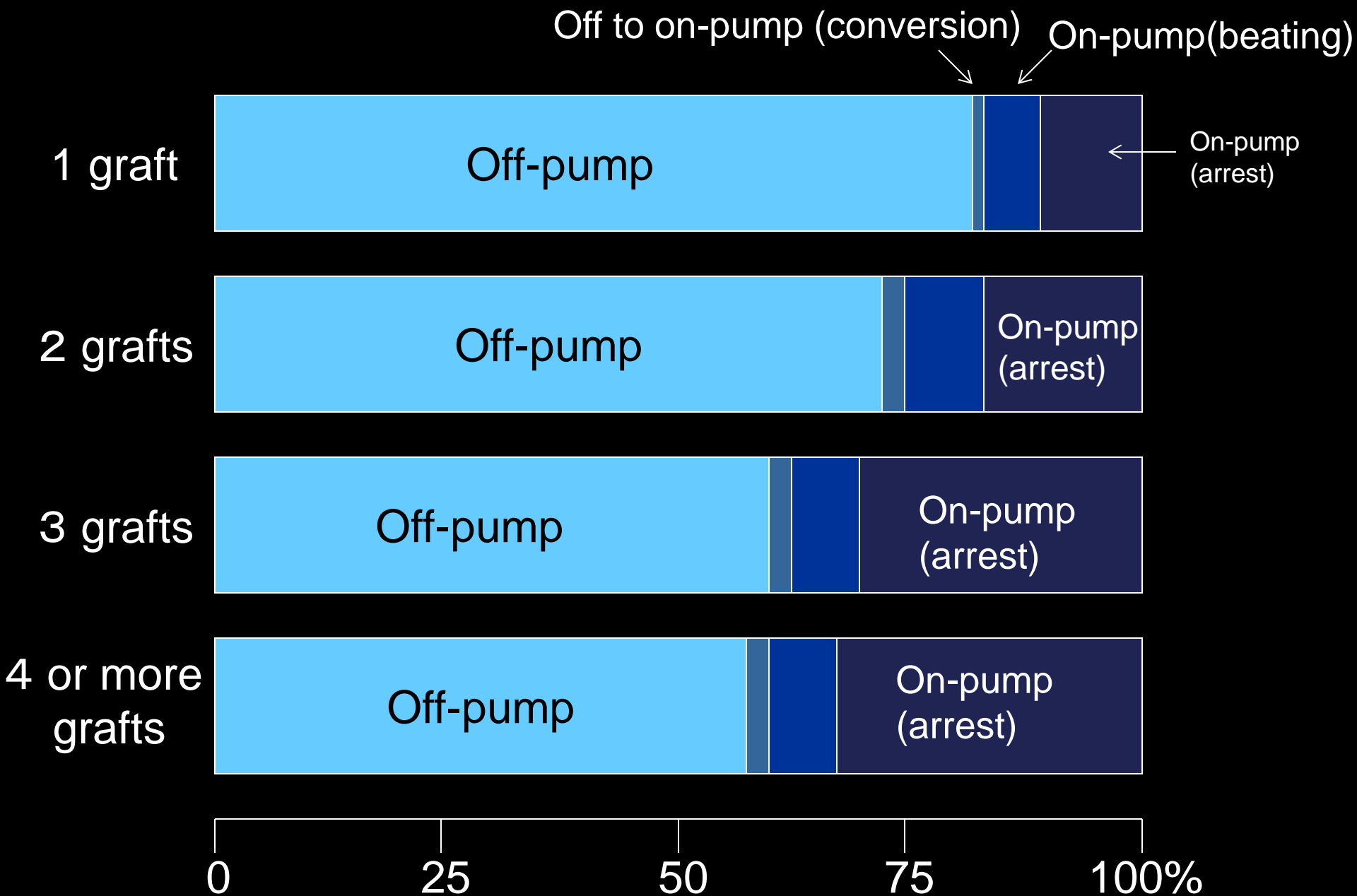
Number of grafts according to surgical procedures

mean grafts
(previous)

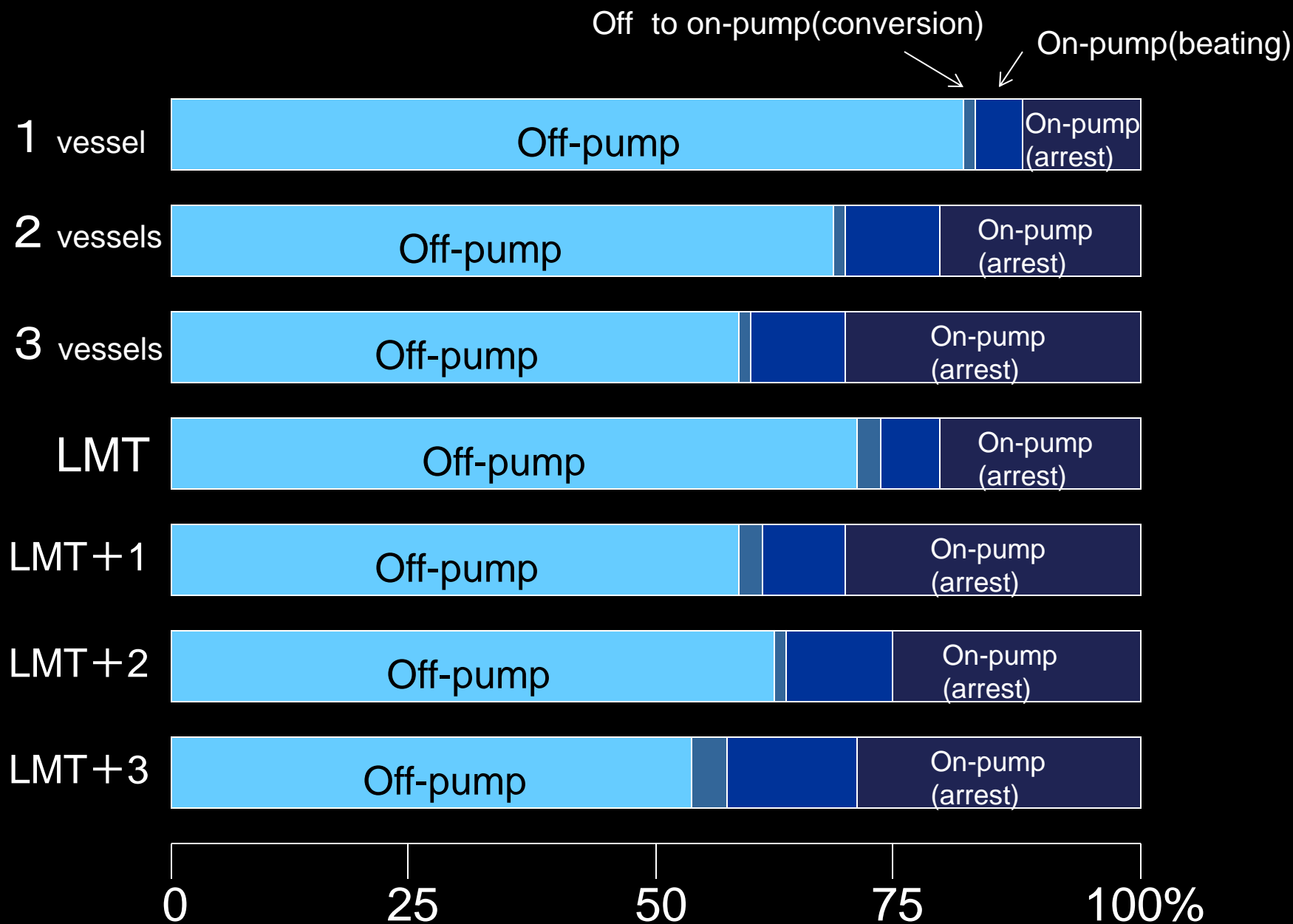


0 25 50 75 100%

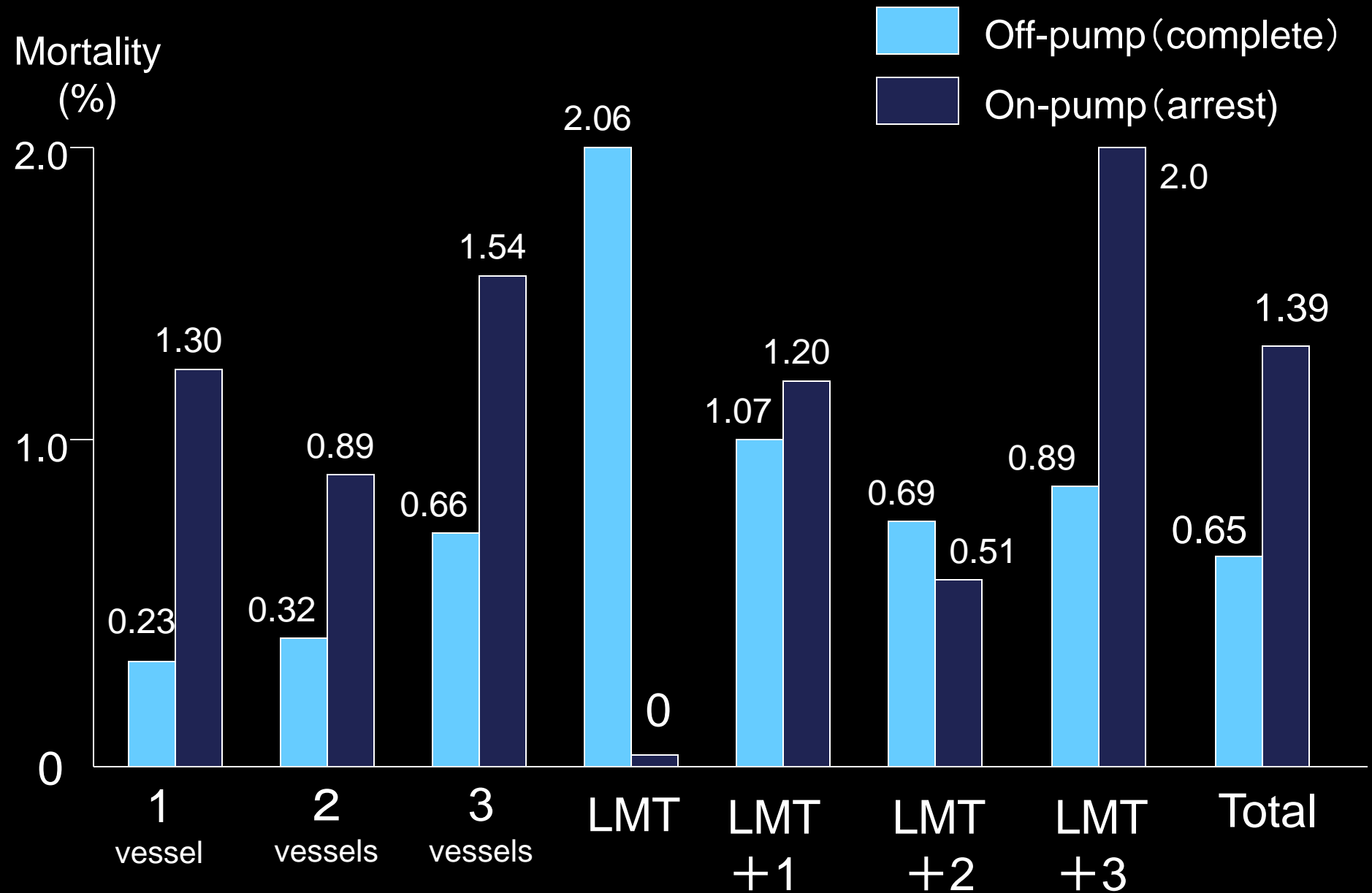
Surgical procedures according to number of grafts



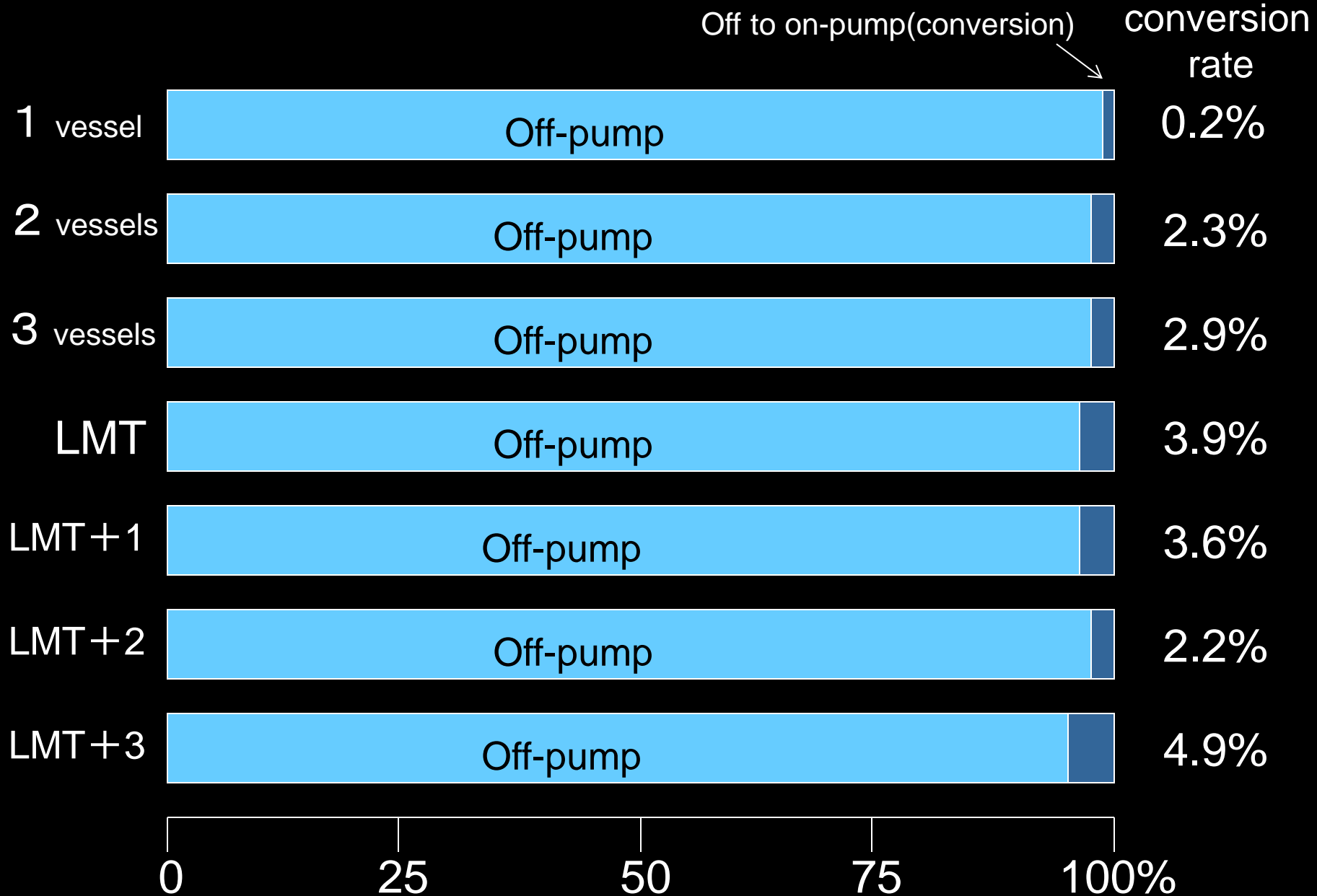
Surgical procedures according to diseased vessels



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

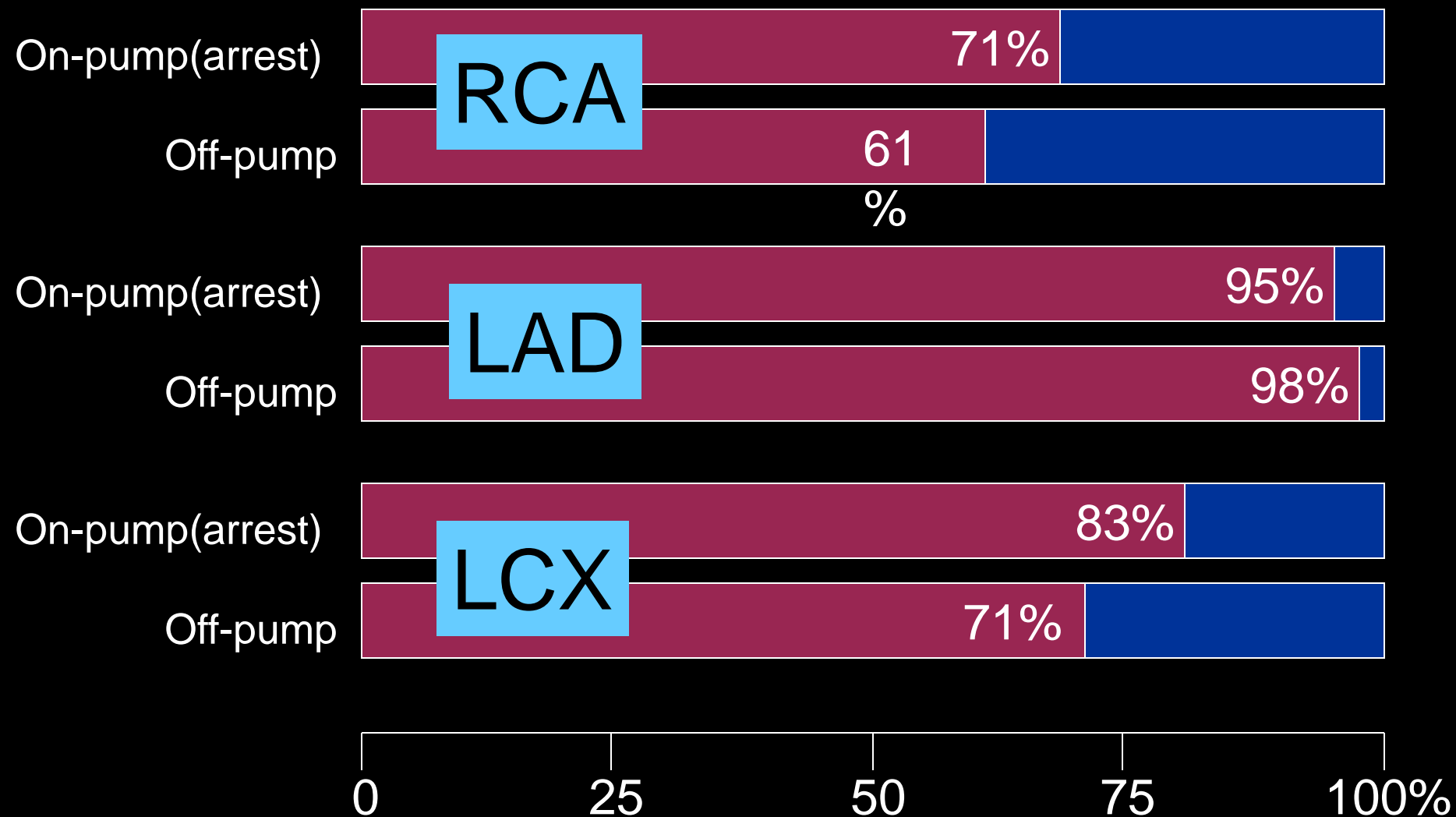


Off to on-pump conversion rate according to diseased vessels (total:2.9%)

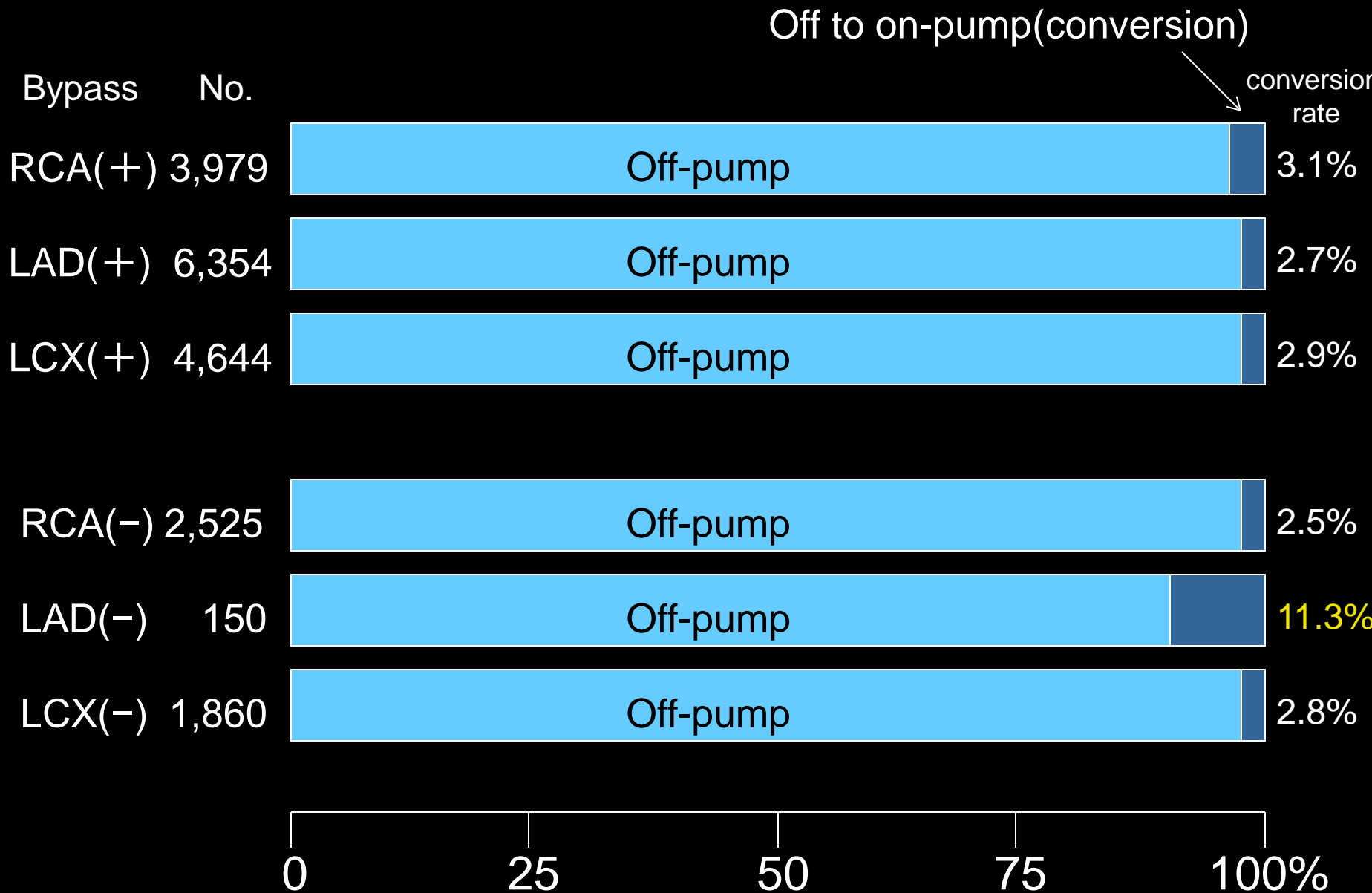


On-pump (arrest) vs. off-pump (Initial elective CABG)

bypass+
bypass-

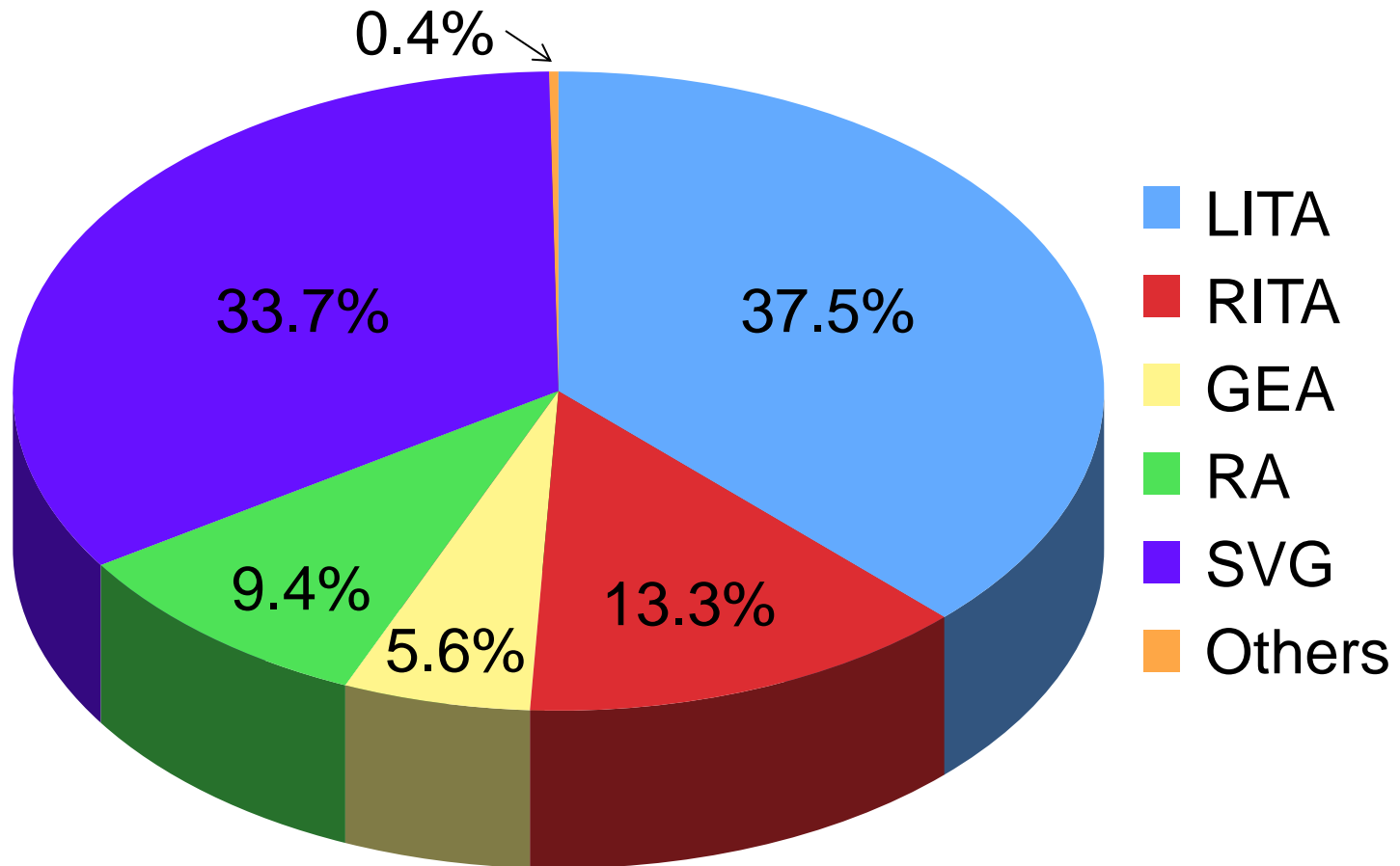


Off-pump vs. off to on-pump conversion (Initial elective CABG)

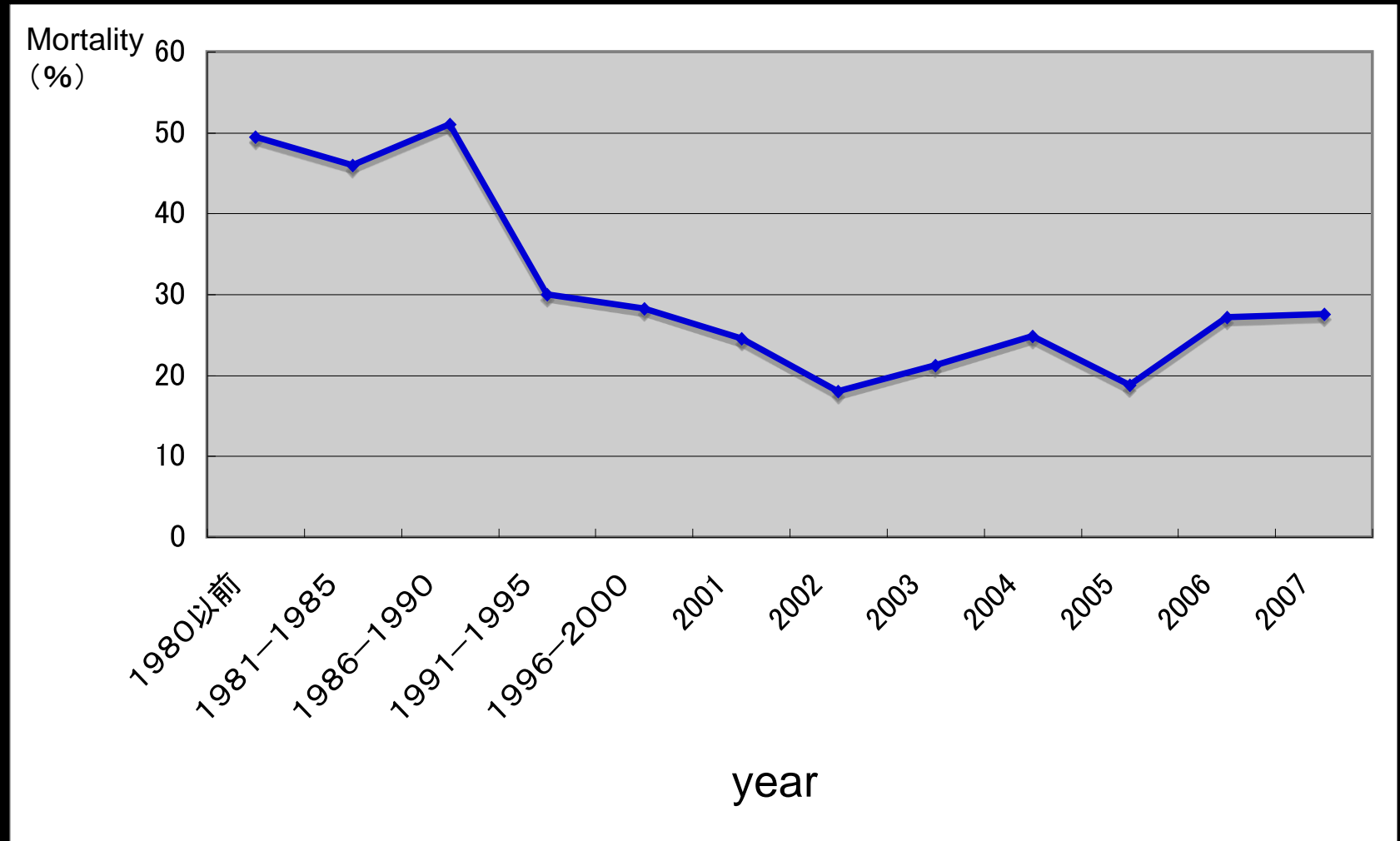


Graft selection

(Total number of grafts : 28,954 grafts)



Changes in mortality of VSP

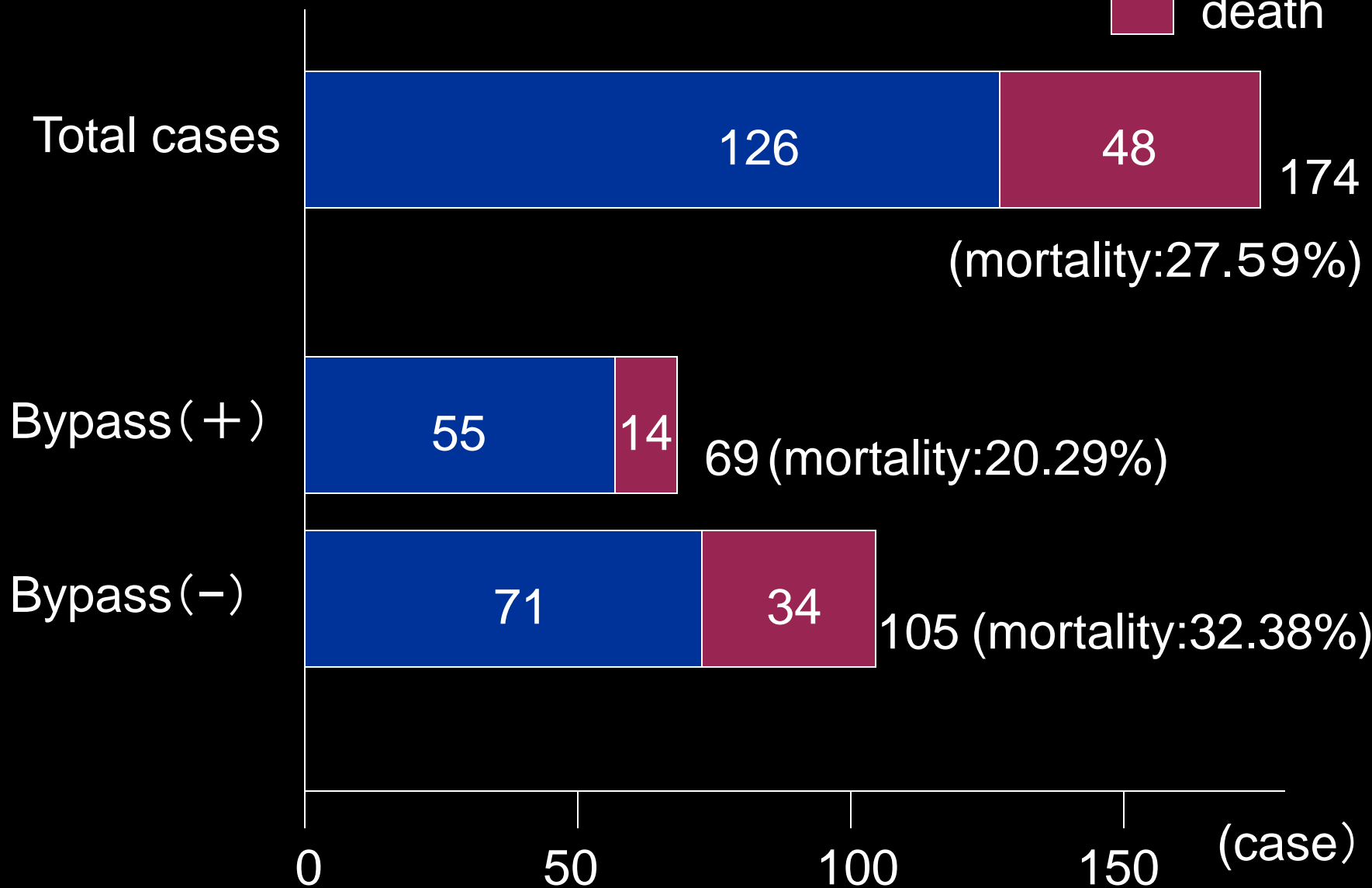


2007;

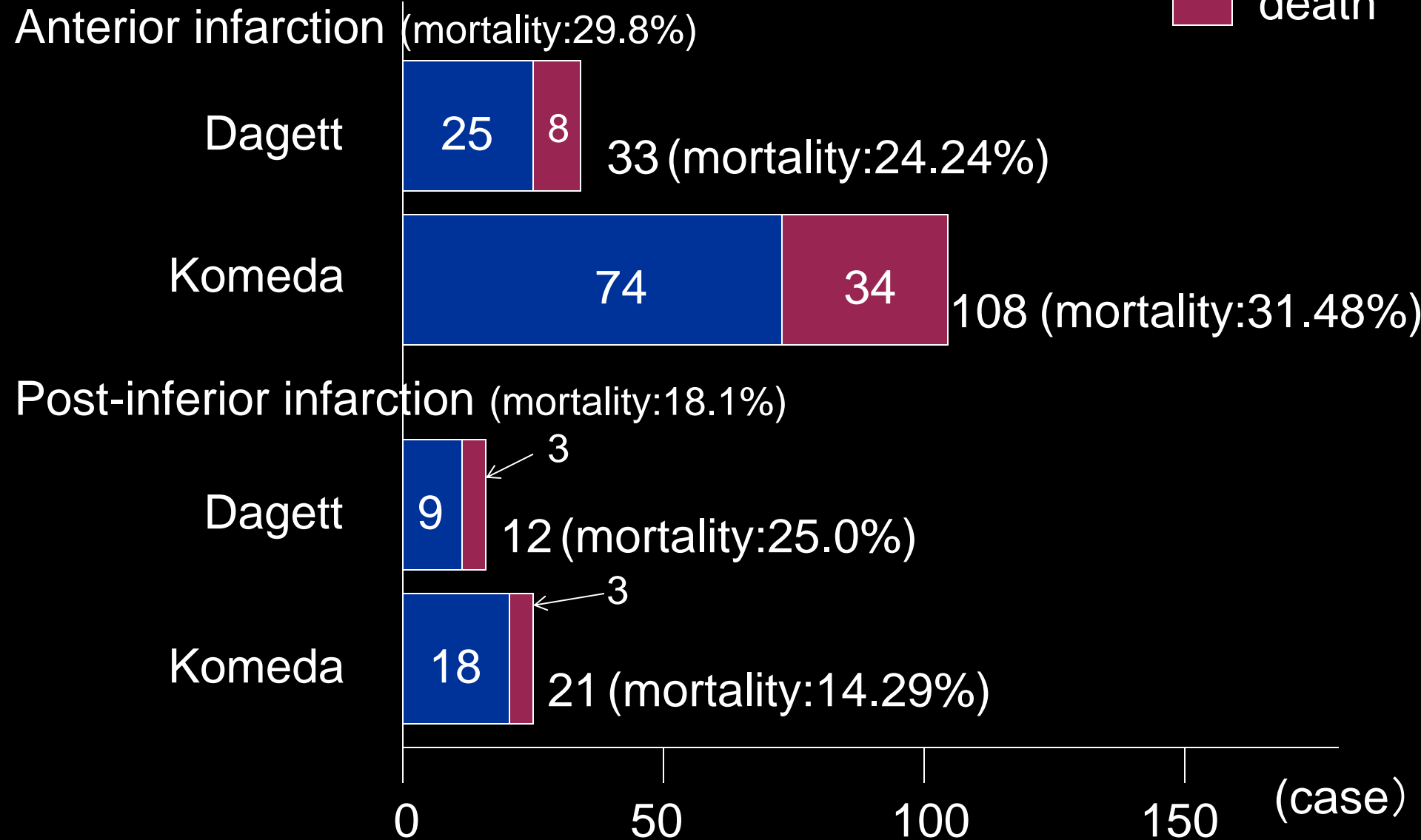
Total cases: 174、death cases: 48(Mortality: 27.6%)

Results of VSP (1)

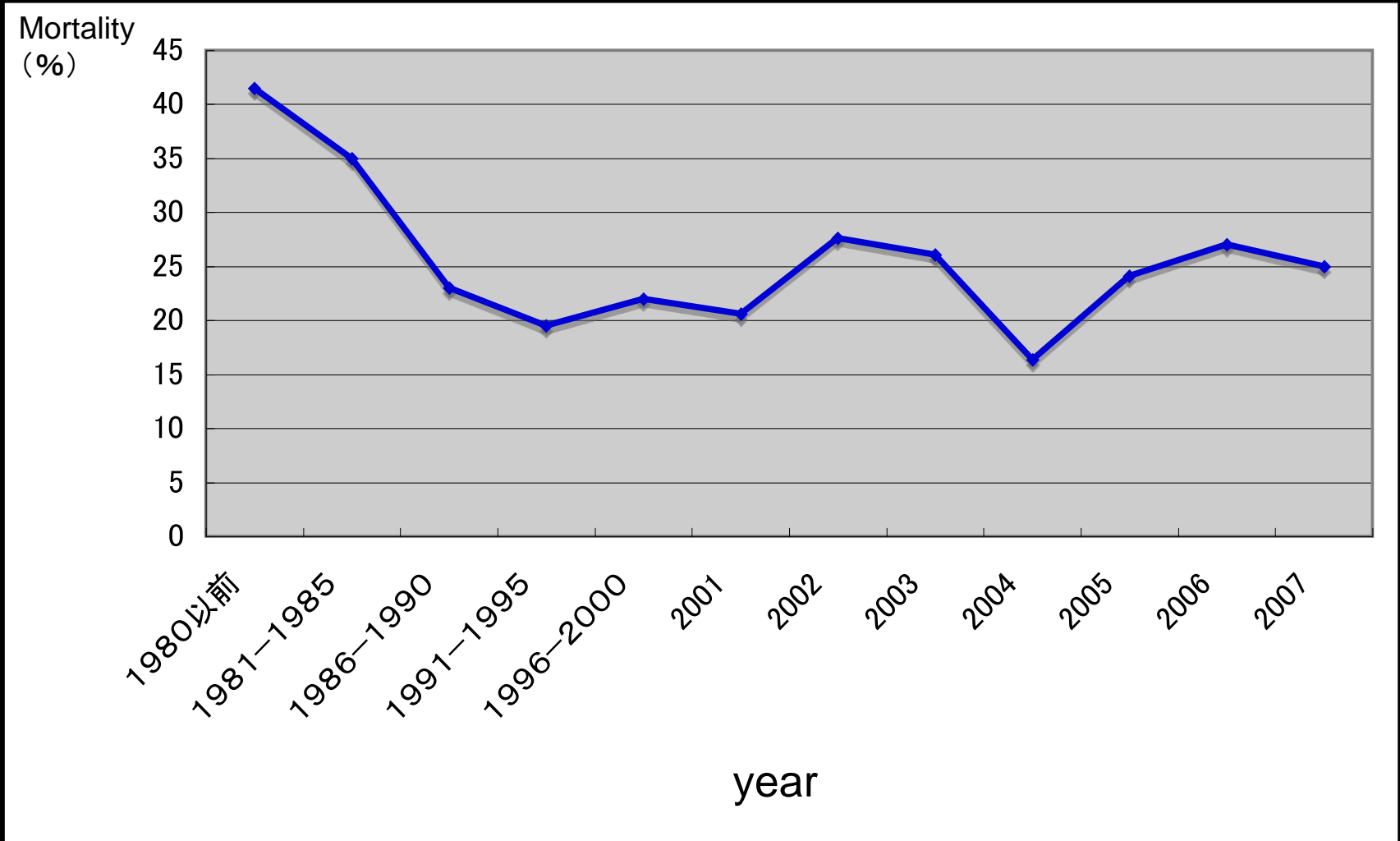
alive
death



Results of VSP (2)



Changes in mortality of papillary muscle rupture of LV

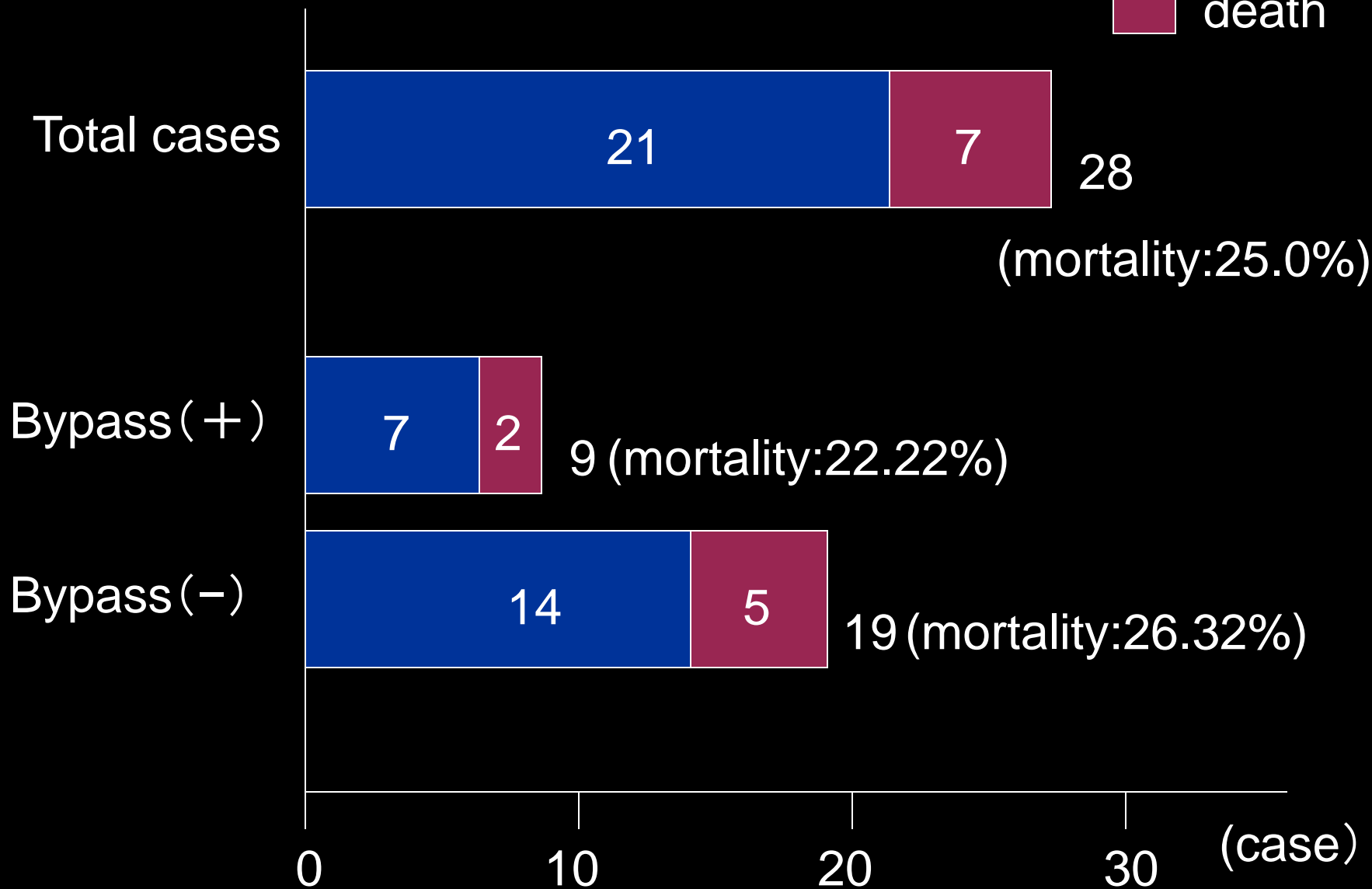


2007;

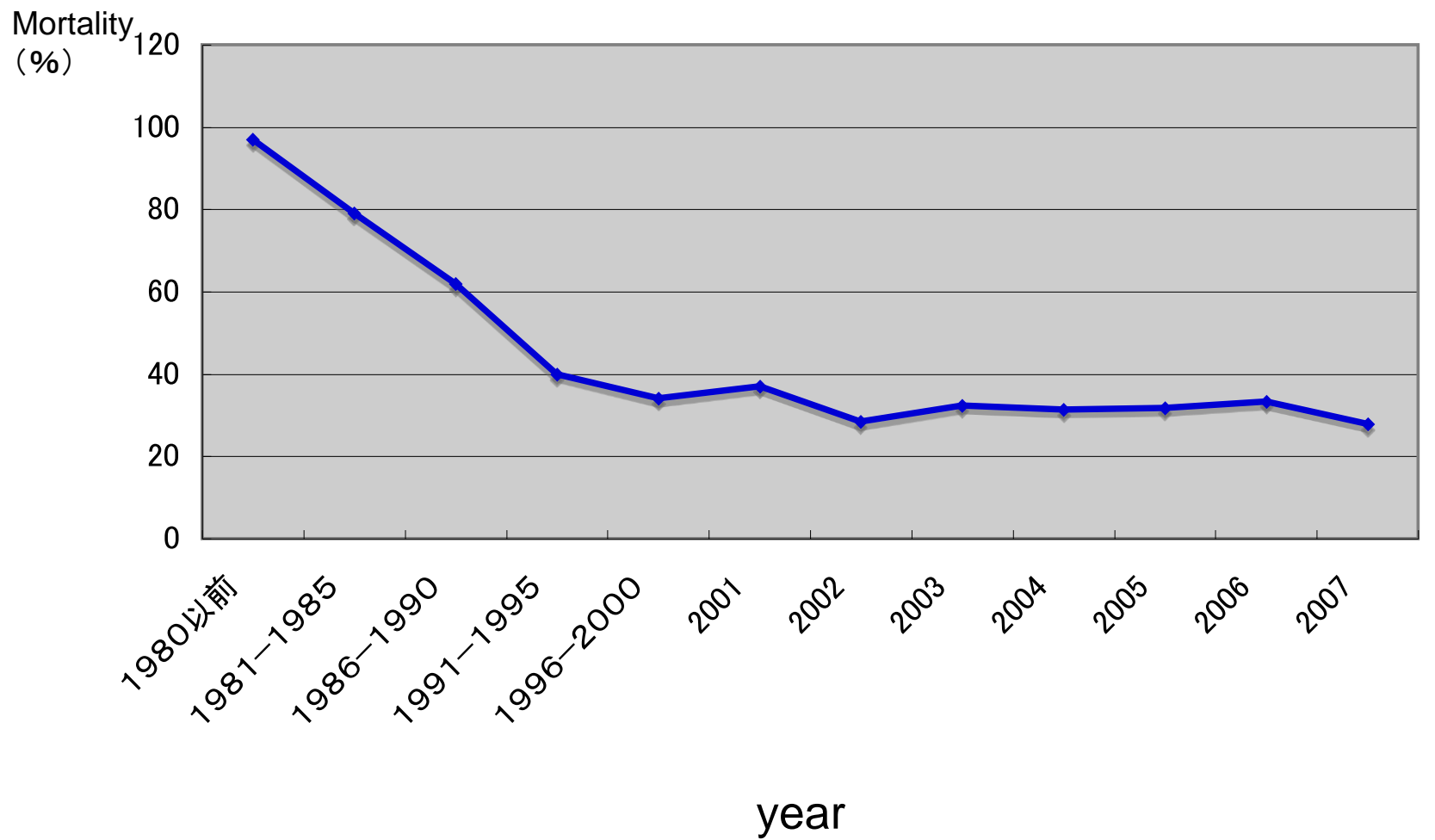
Total cases: 28、death cases: 7(mortality: 25.0%)

Results of papillary muscle rupture

alive
death



Changes in mortality of cardiac rupture



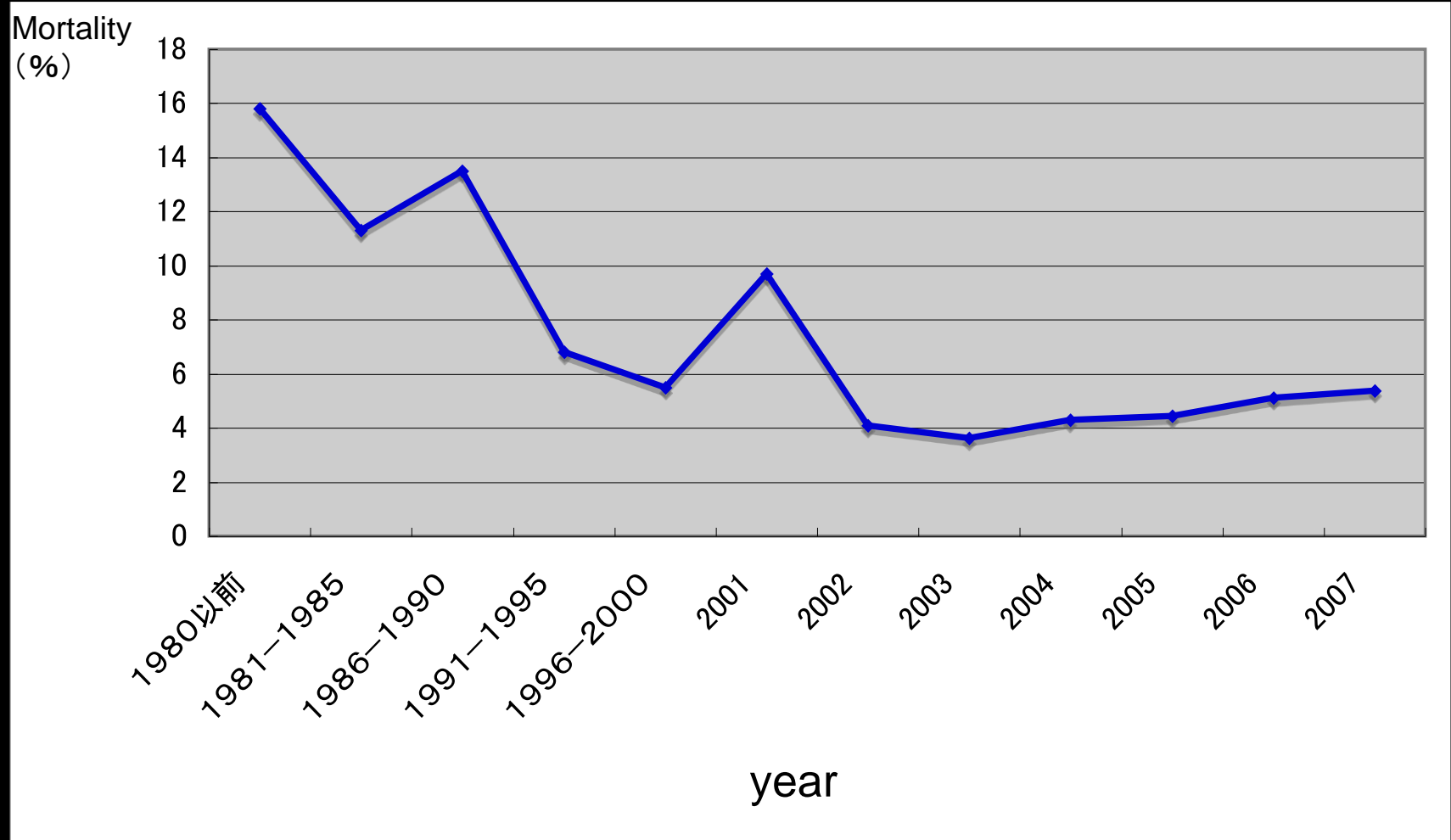
2007;

Total cases: 140、death cases: 39 (mortality: 27.9%)

Results of cardiac rupture



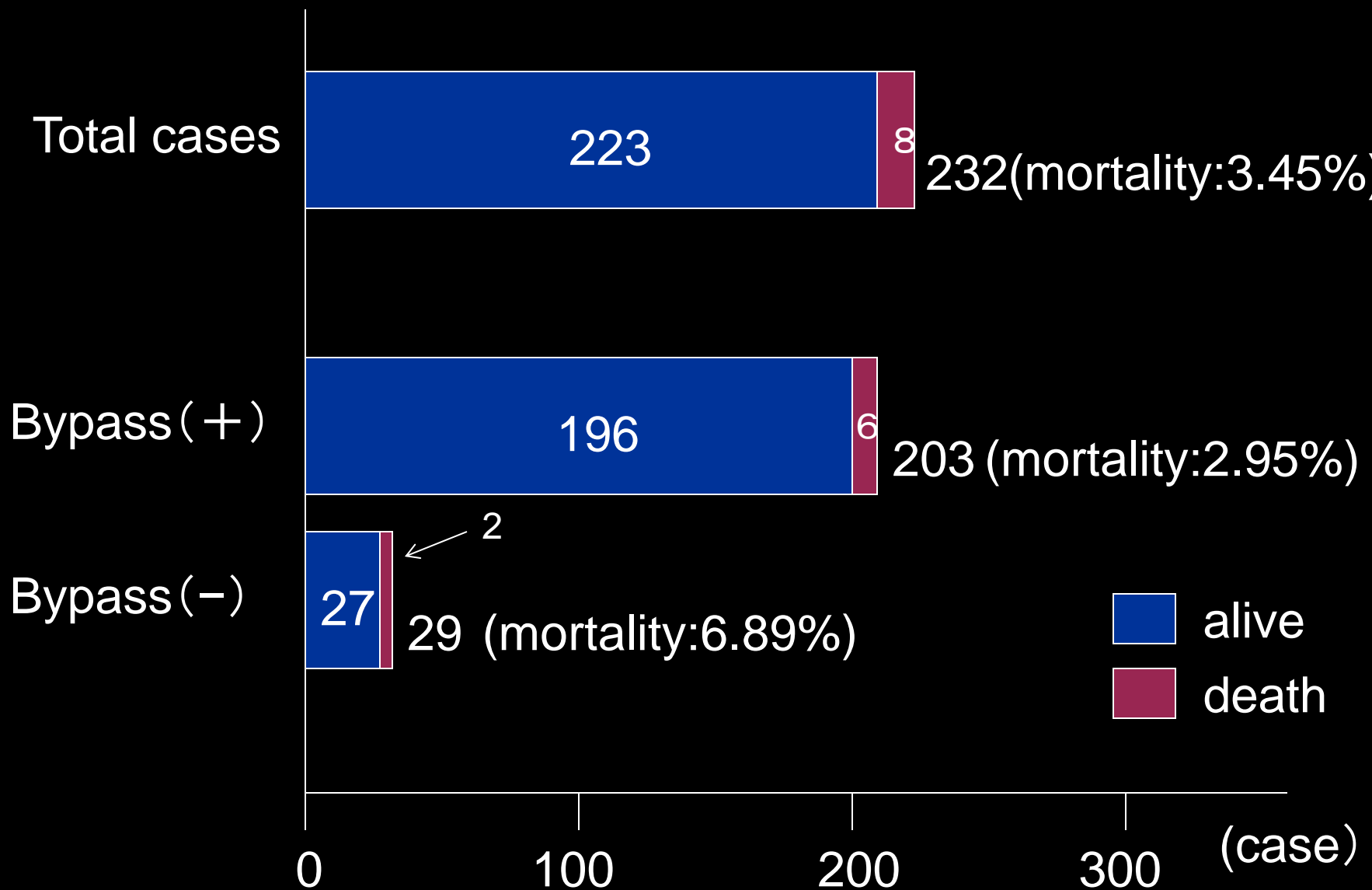
Changes in mortality of left ventricle aneurysm



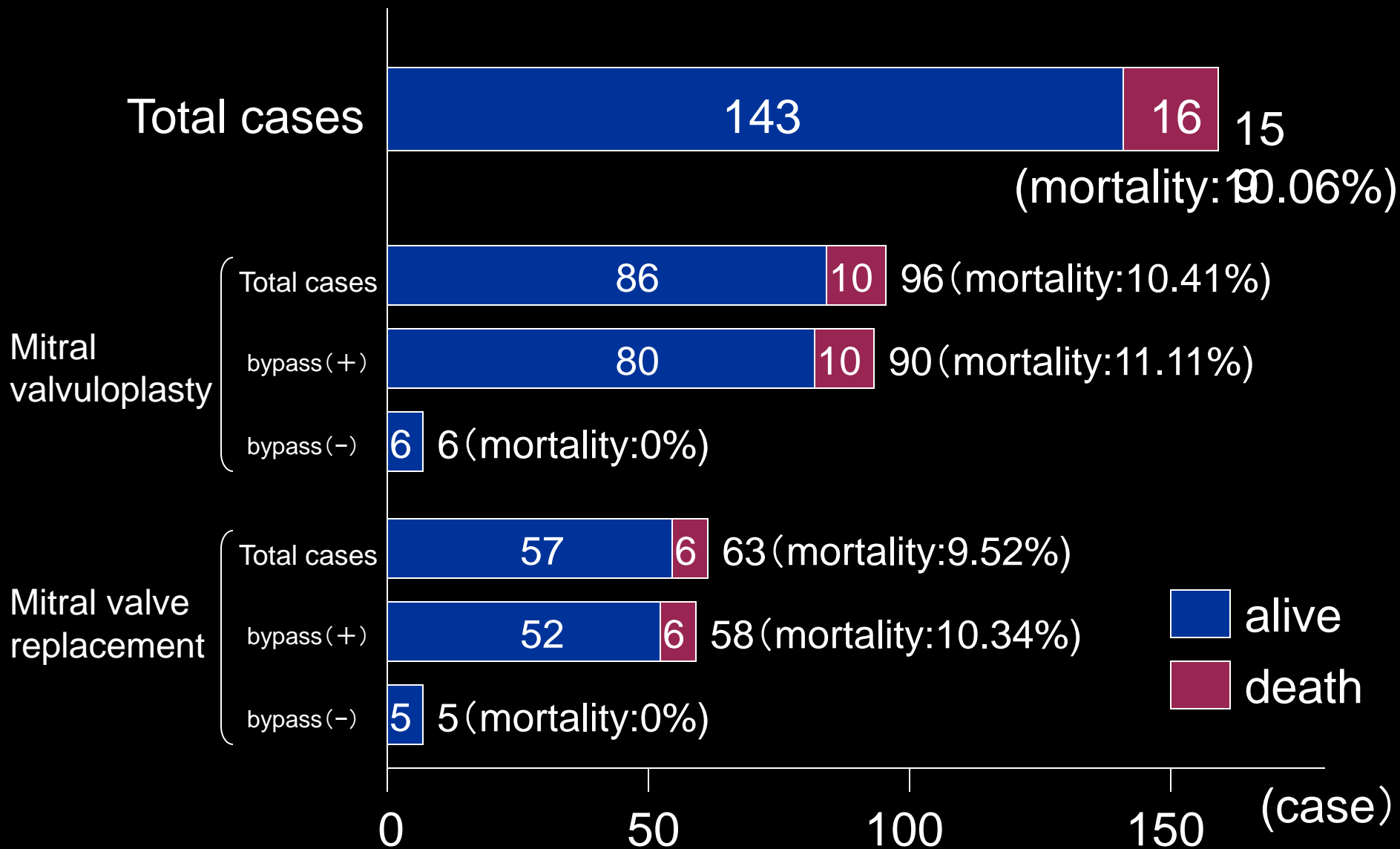
2007;

Total cases: 352、death cases 19 (mortality: 5.39%)

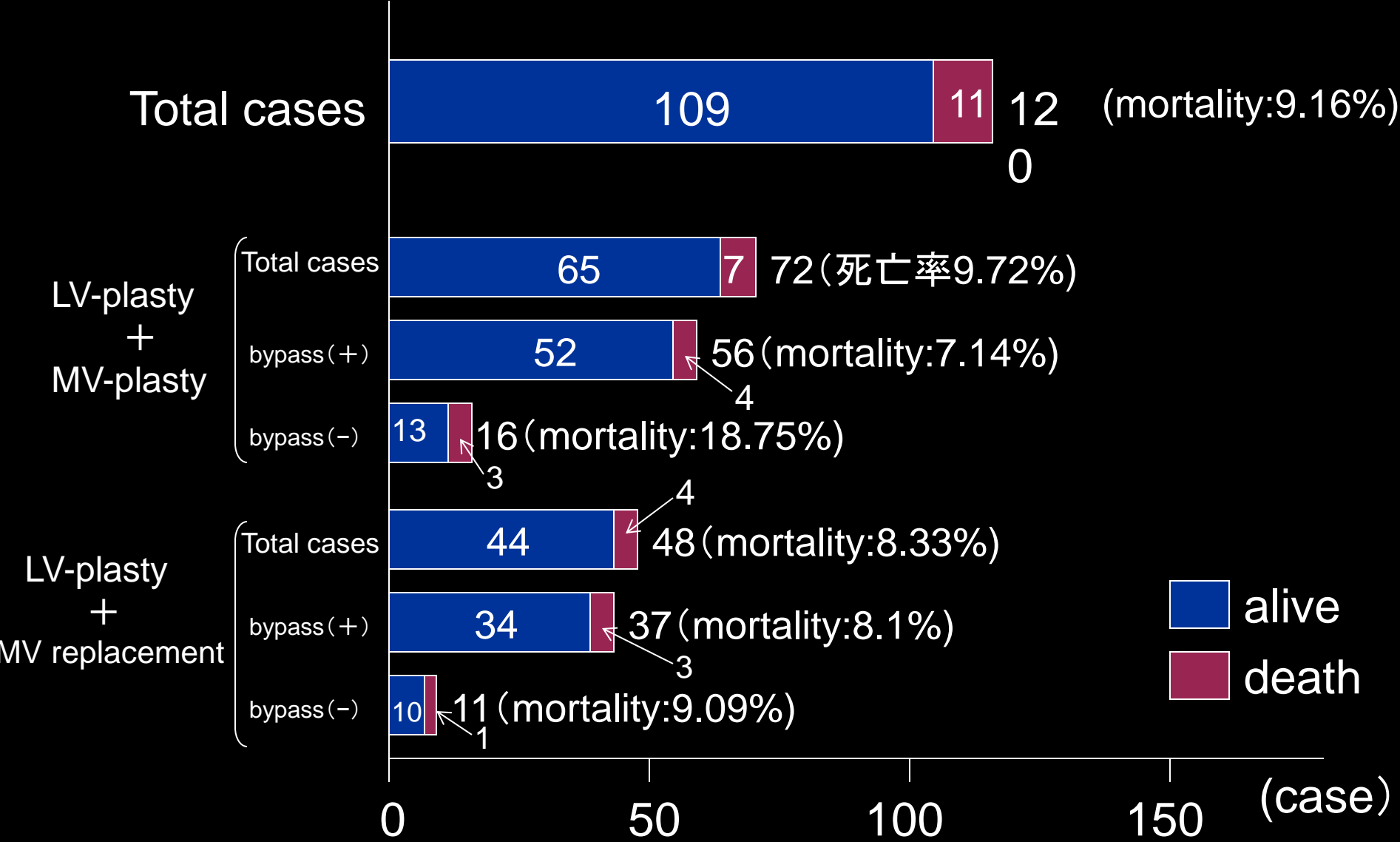
Results of left ventricular-plasty (including left ventriculectomy) against LV aneurysm and/or ischemic cardiomyopathy



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 1.78%, and 0.97% respectively, indicating better results than those of previous year.**
- 2.Of all initial elective CABG, 66% cases underwent off-pump CABG (OPCAB), showing high frequency rate. The mortality of OPCAB was 0.65%, showing excellent results.**
- 3.The frequency rate of off to on-pump CABG was 2.9%, which was higher than that of previous year, however, the mortality of this procedure was 3.7%, indicating better result.**
- 4.The mean number of grafts for CABG was 2.94, which increased than that of last years, indicating more bypass performed.**

Conclusions (2)

6. Of 4 or more bypass surgery, 57% cases underwent OPCAB.

6. The frequency use rate of arterial grafts was 65%, on the other hand, that of vein graft was 35%.

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