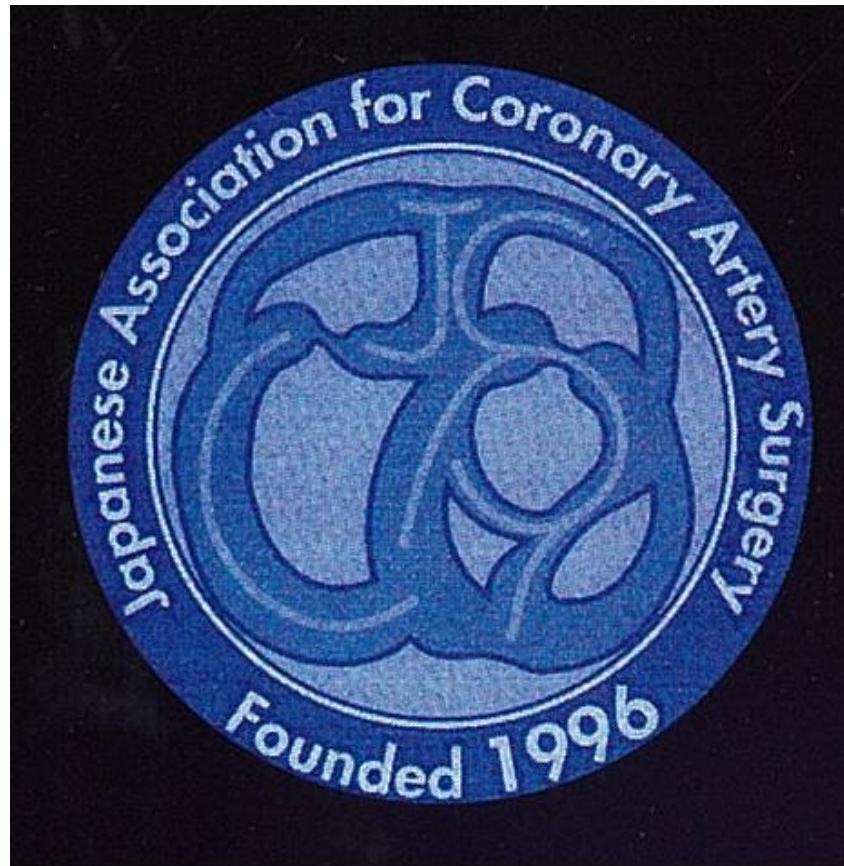


# Coronary artery surgery results In 2015



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

# Coronary artery bypass grafting (CABG), 2015

**Total cases : 13,814**

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**Isolated CABG : 9,707 (70%)(previous year:71%)**

**Concomitant CABG : 4,107 (30%)(previous yeay:29%)**

## Isolated CABG

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**Initial elective : 8,150**

**Off-pump : 5,136**

**On-pump : 3,014**

**(Off-pump rate : 63%)**

**(previous year : 68%)**

**Except initial elective :1,557**

**Off-pump : 795**

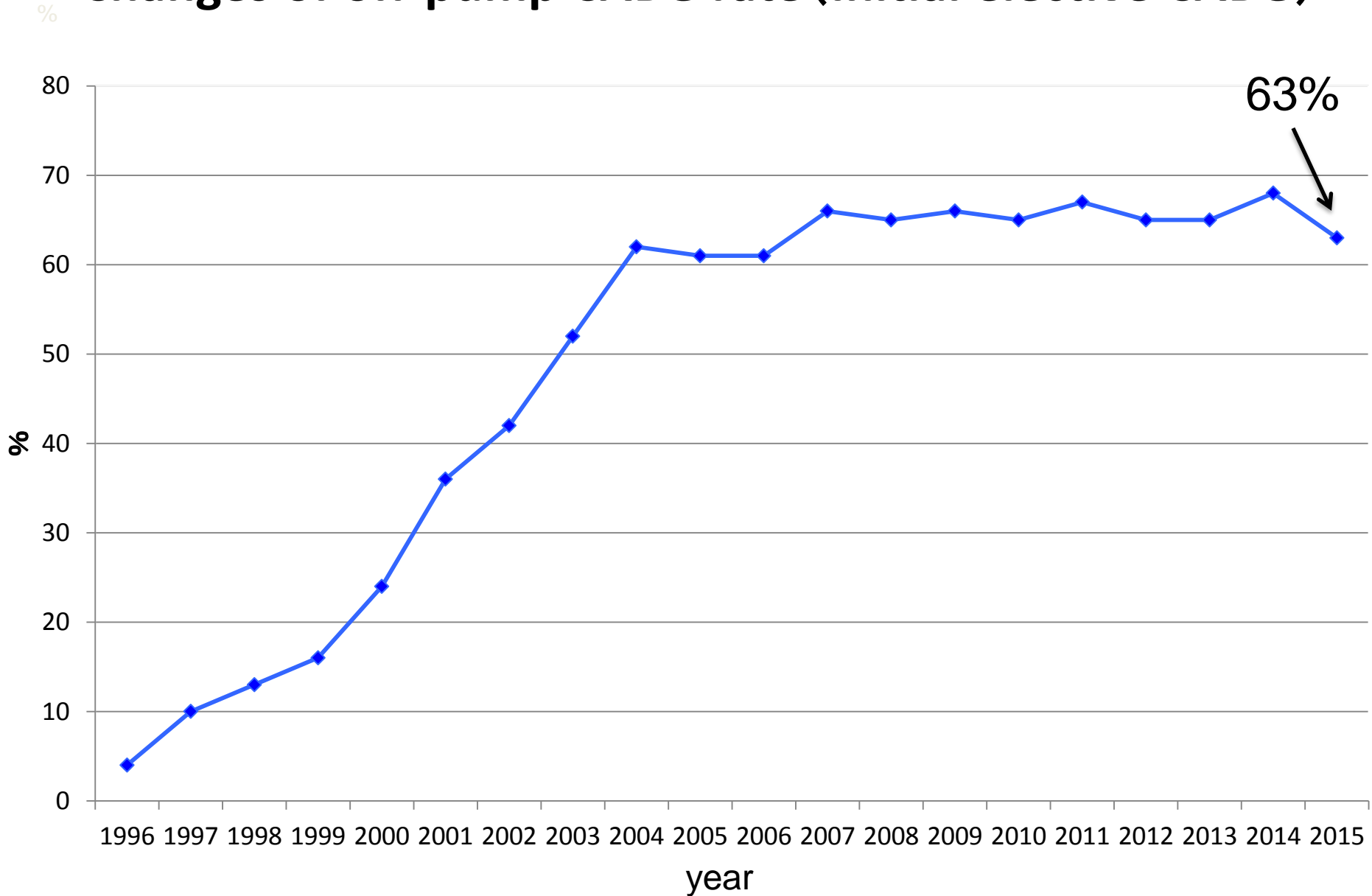
**On-pump : 762**

**(Off-pump rate : 51%)**

**(previous year : 56%)**

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



**Initial elective CABG :8,150(100%)**

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**On-pump (arrest) :1,880(23.1%)**

**On-pump (beating) :1,134(13.9%)**

**Off-pump (total) :5,136(63.0%)**

**Off-pump (complete) :5,045**

**On-pump (conversion) : 91**

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**Off-pump complete rate :98.2%**

**Off to on-pump conversion rate :1.8%**  
**(previous year:2.5%)**

**Mortality of isolated CABG :1.72%**  
**(previous year:1.70%)**

**Mortality of initial elective CABG:0.83%**  
**(previous year:1.03%)**

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**On-pump (arrest) :1.38%**

**On-pump (beating):0.97%**

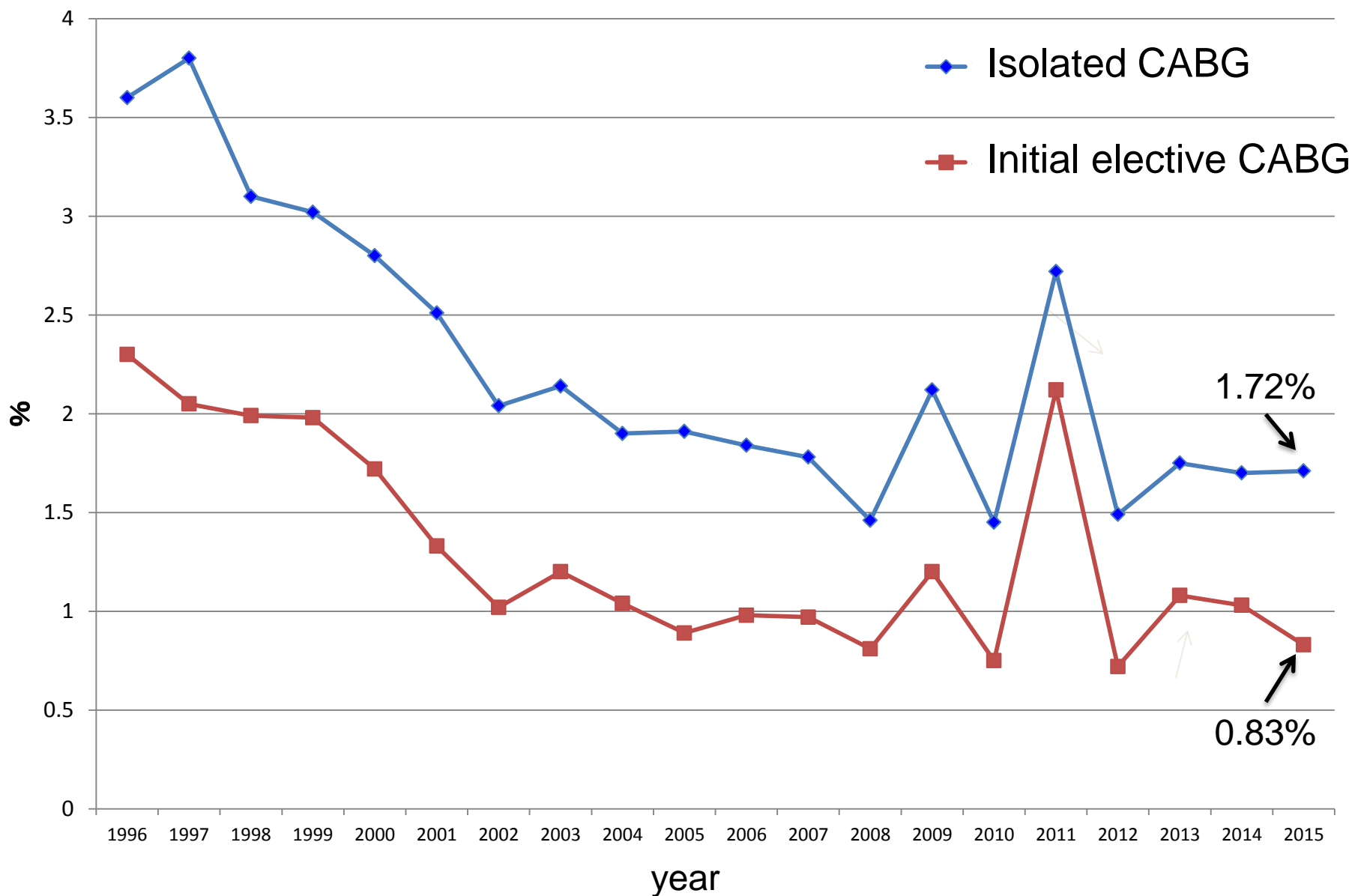
**Off-pump (total) :0.60%**

**Off-pump (complete):0.54%**  
**(previous year:0.72%)**

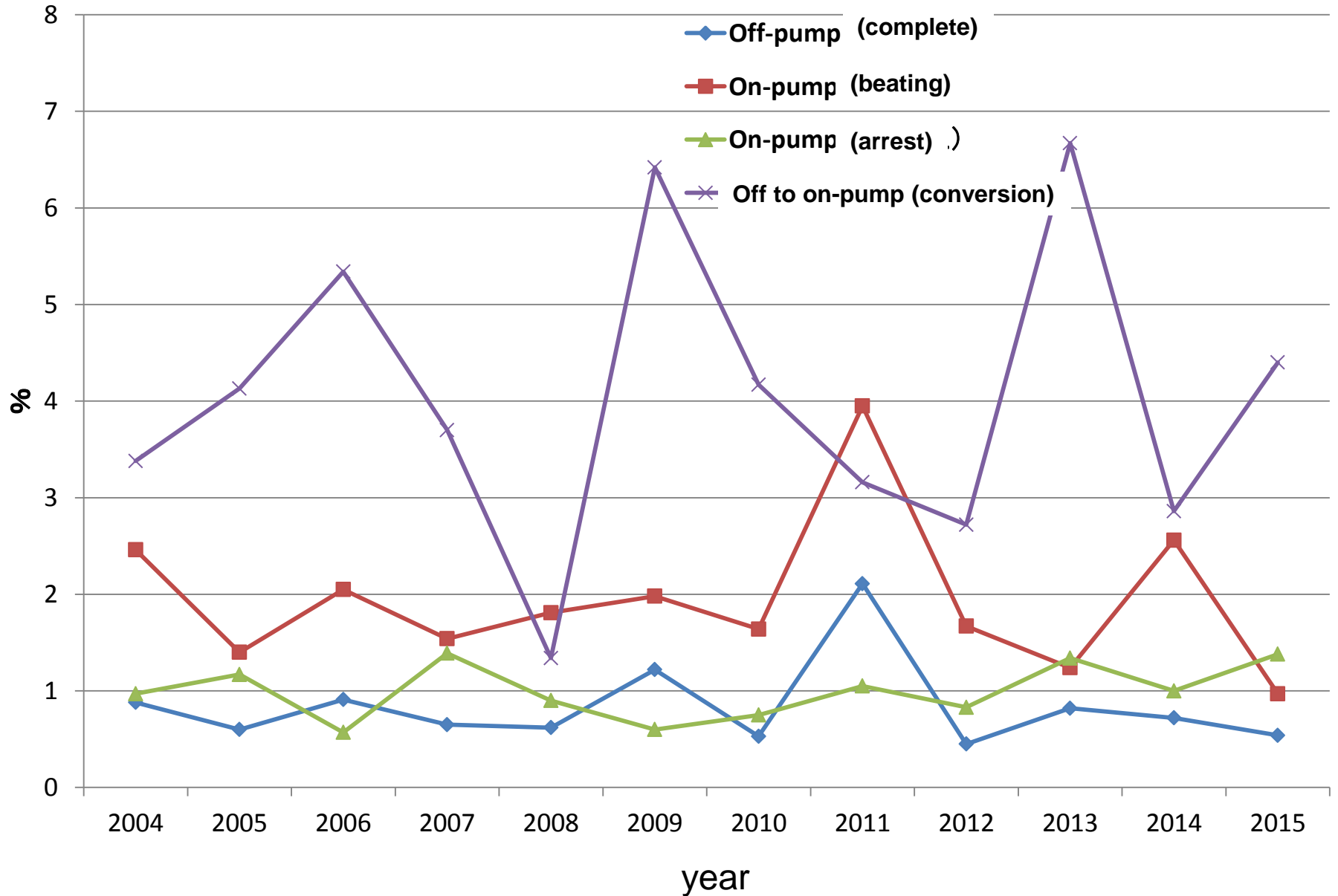
**On-pump (conversion):4.40%**  
**(previous year:2.86%)**

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# Changes of mortality (Isolated and initial elective CABG)

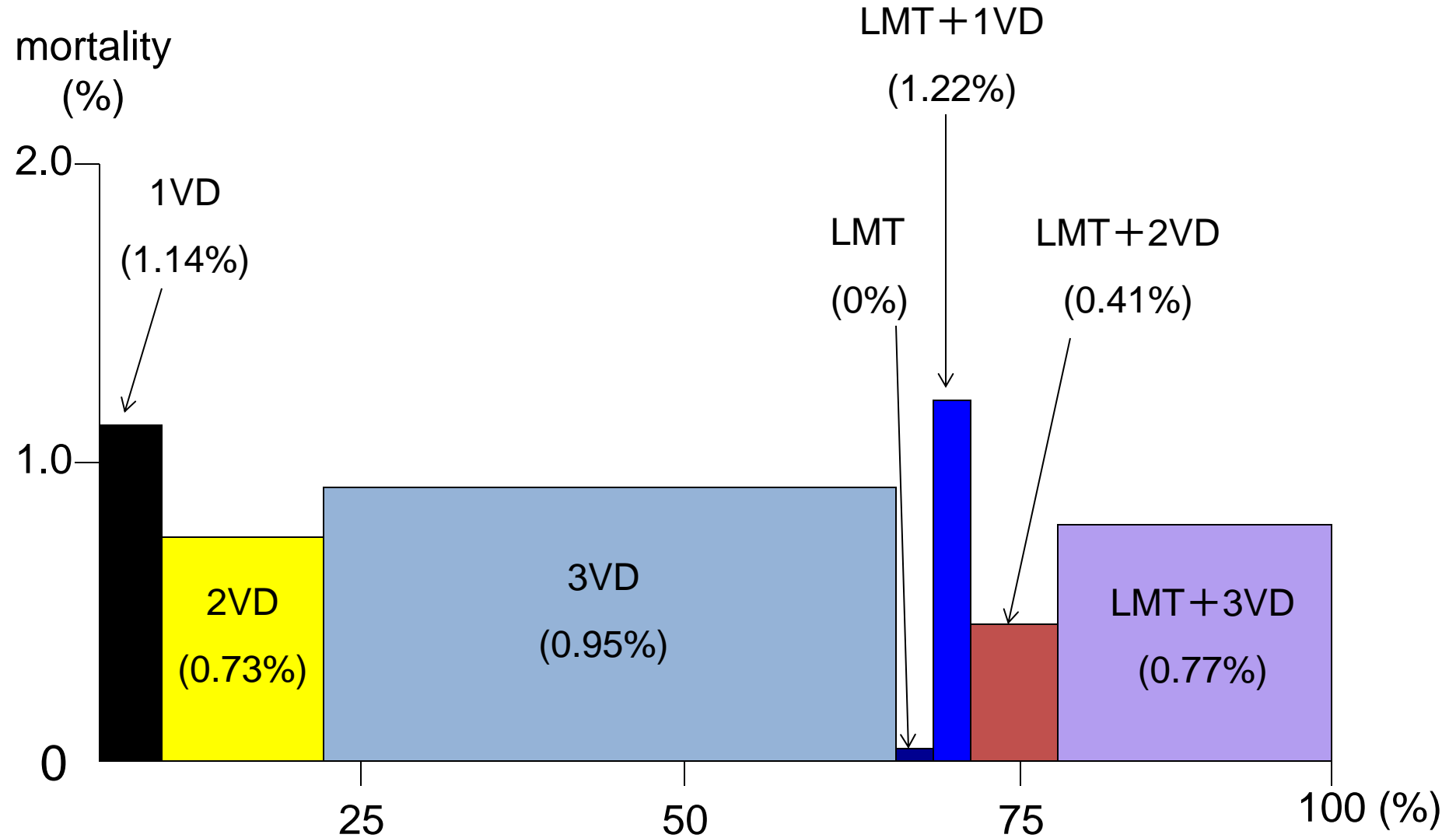


# Changes of mortality for procedures (Initial elective CABG)



# Mortality according to number of diseased vessels

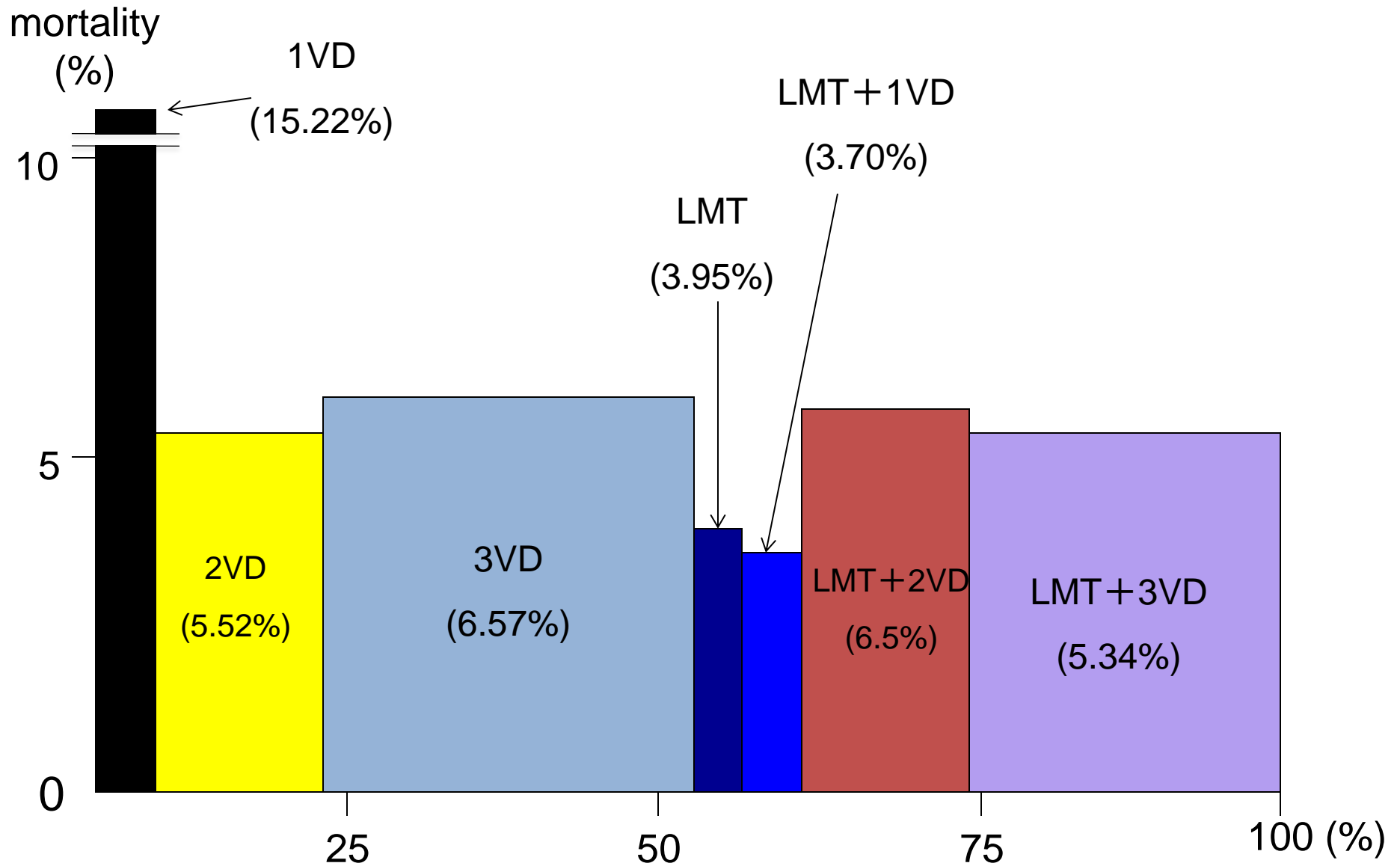
(Initial elective CABG: 8,150, mortality: 0.83%)





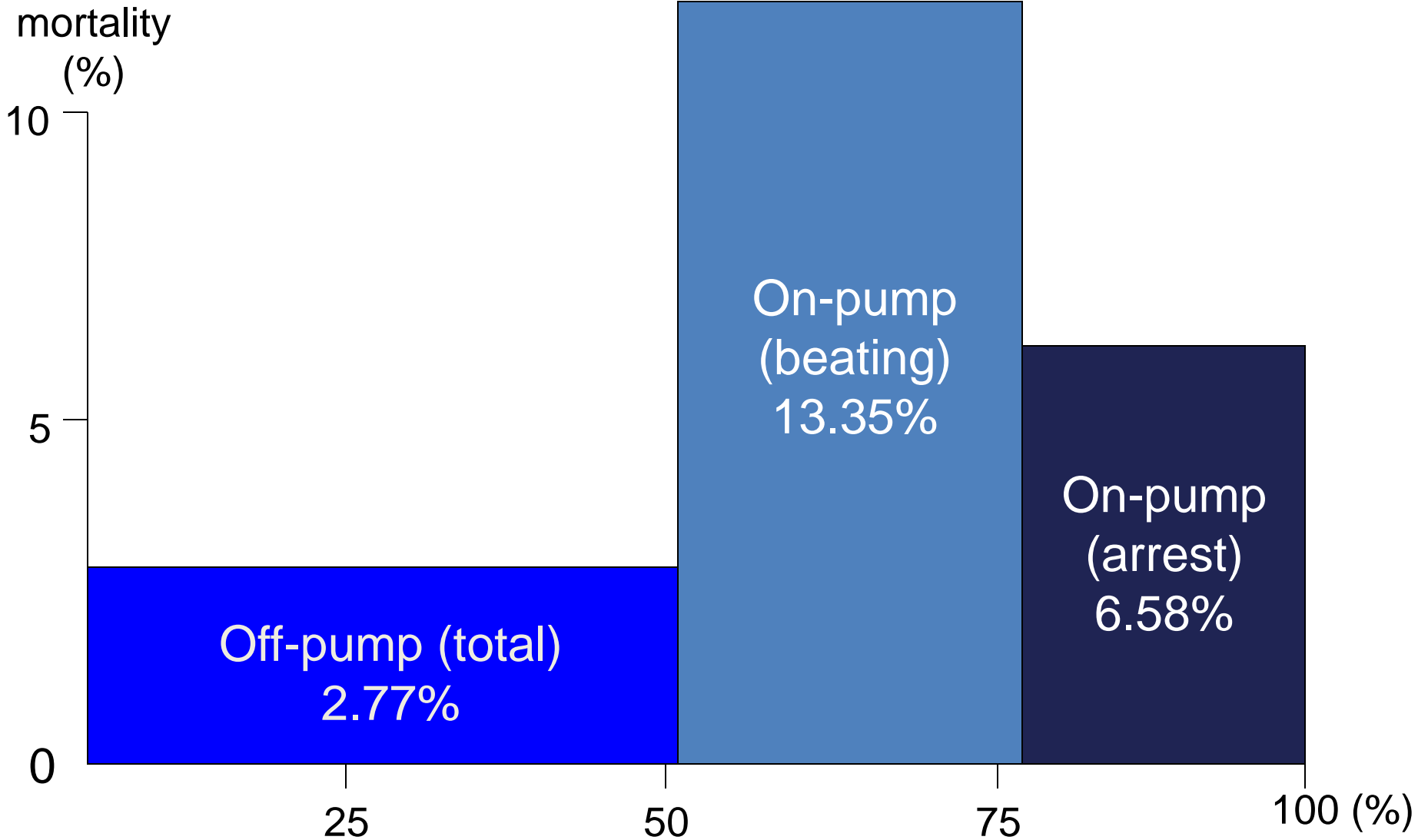
# Mortality according to number of diseased vessels

(Except initial elective CABG: 1,557, mortality:6.36%)

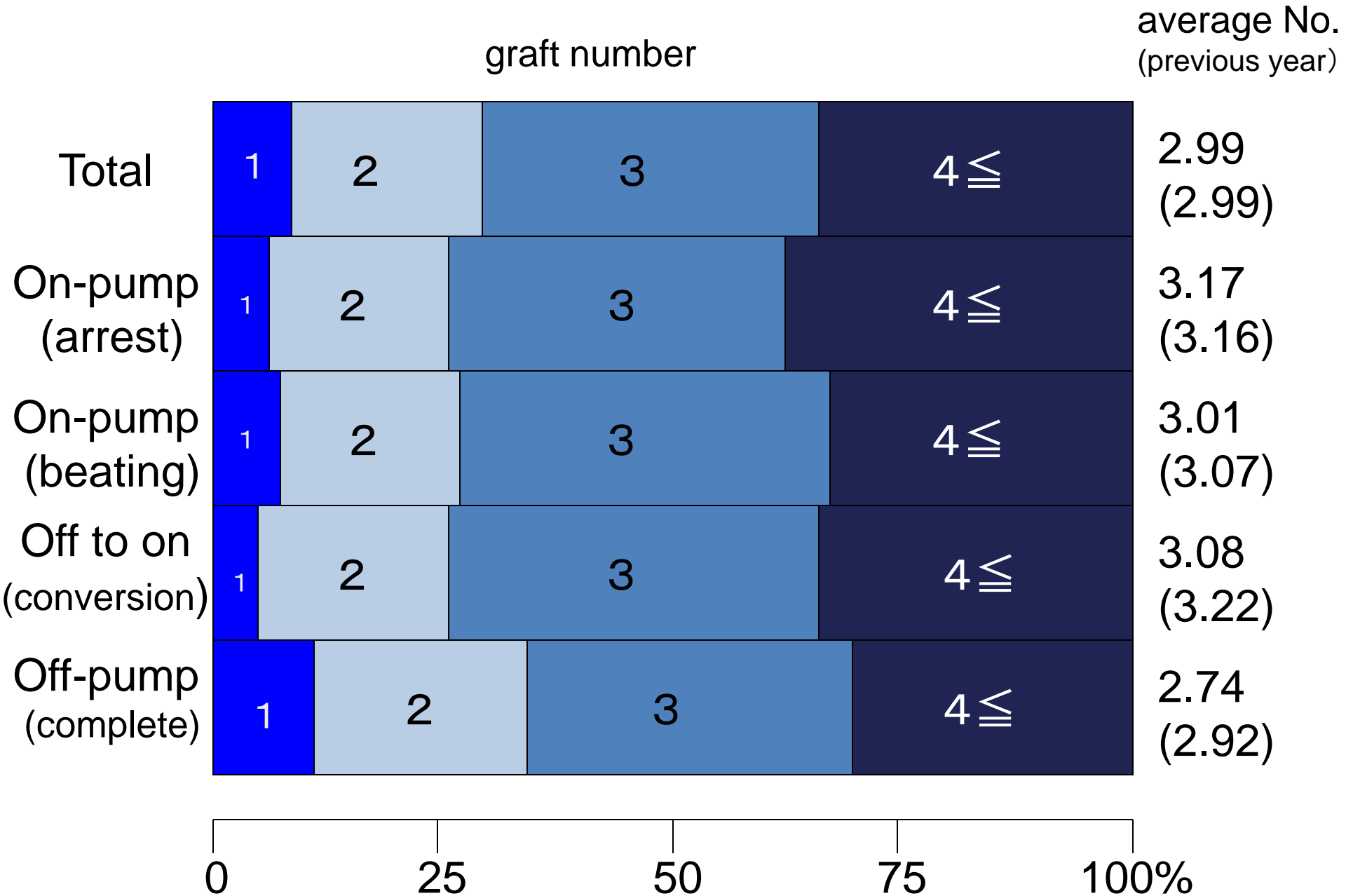


# Mortality according to surgical procedures

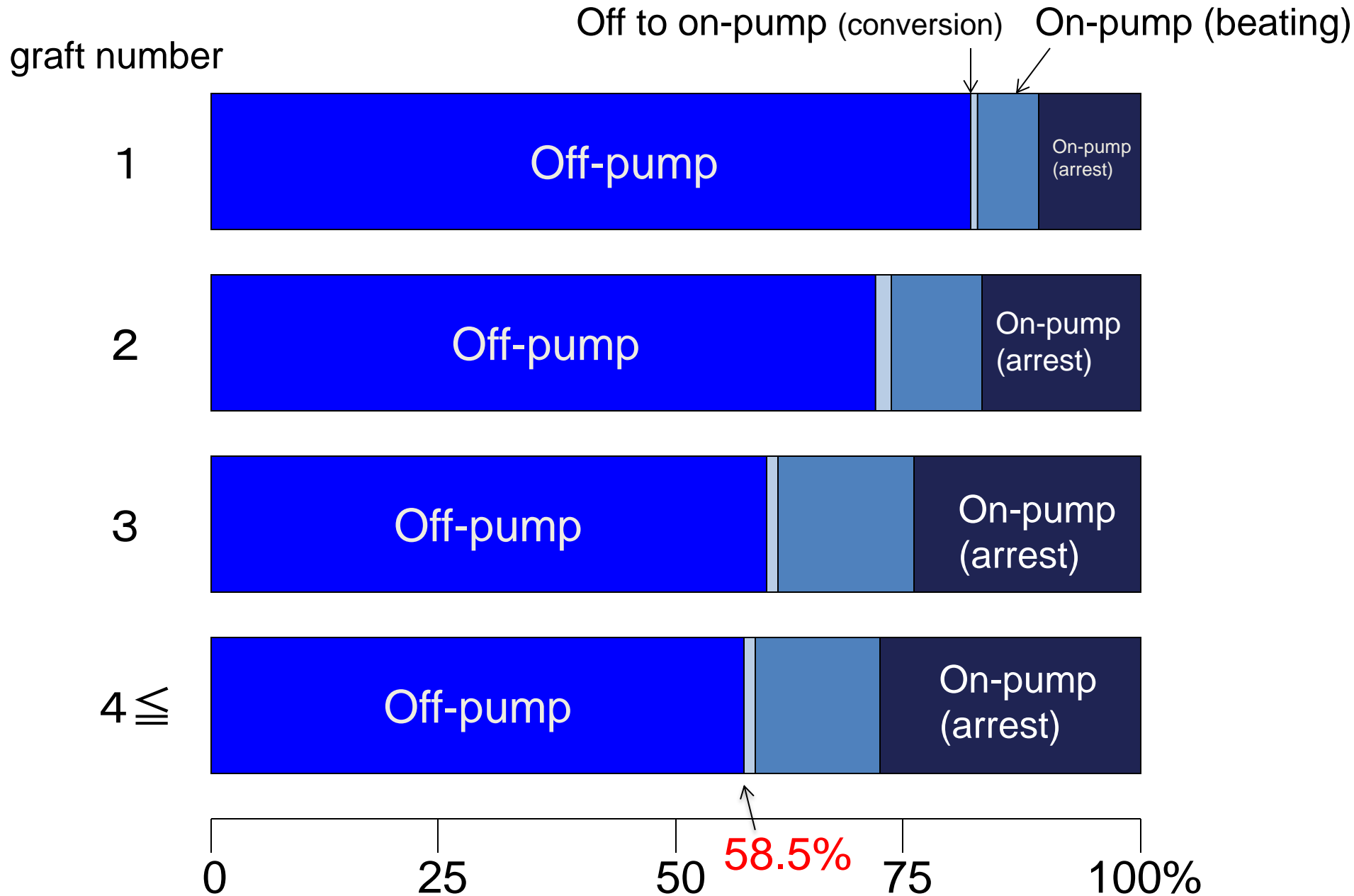
(Except initial elective CABG: 1,557, mortality:6.36%)



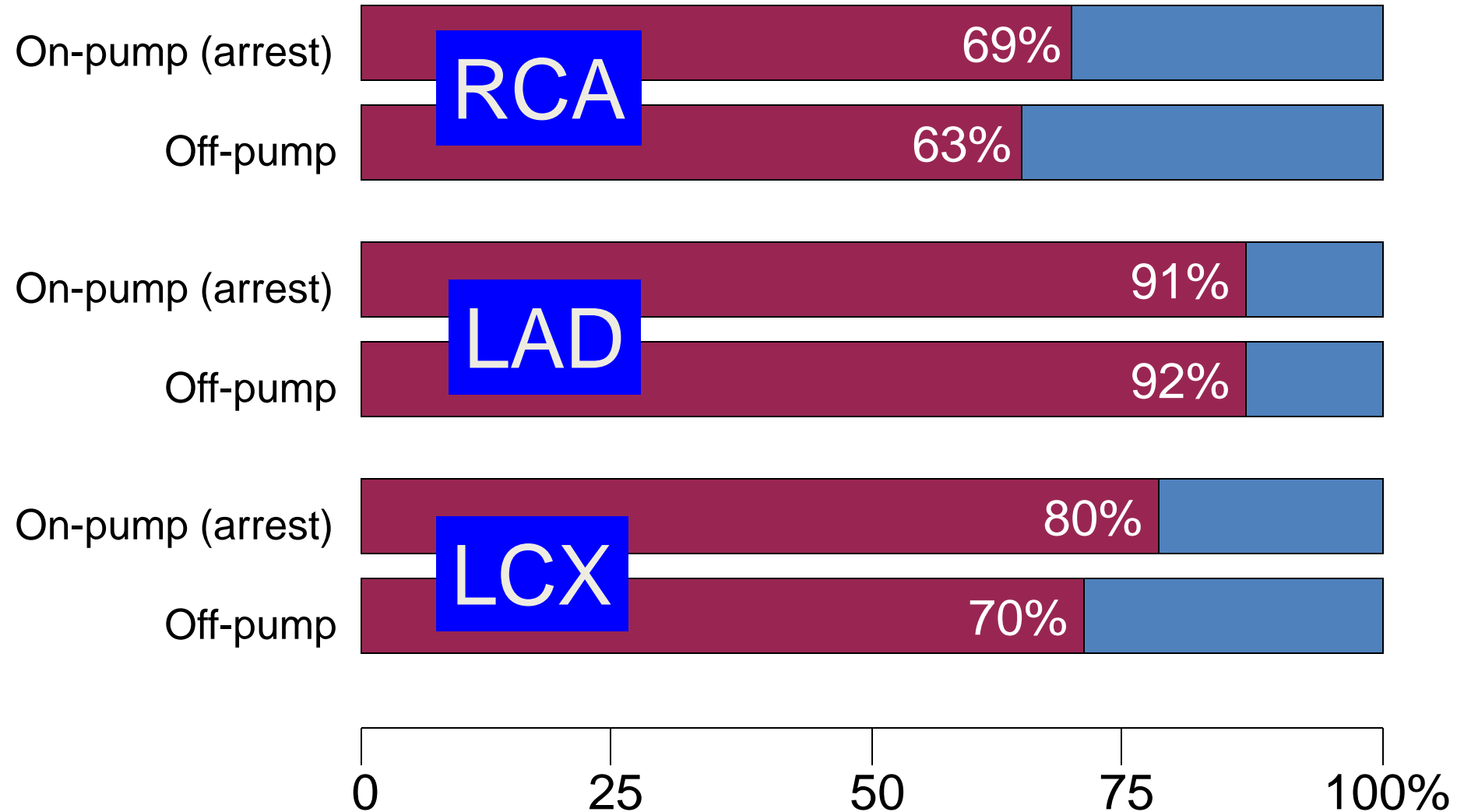
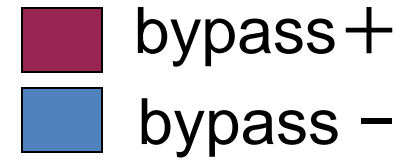
# Graft number according to procedures (Initial elective CABG)



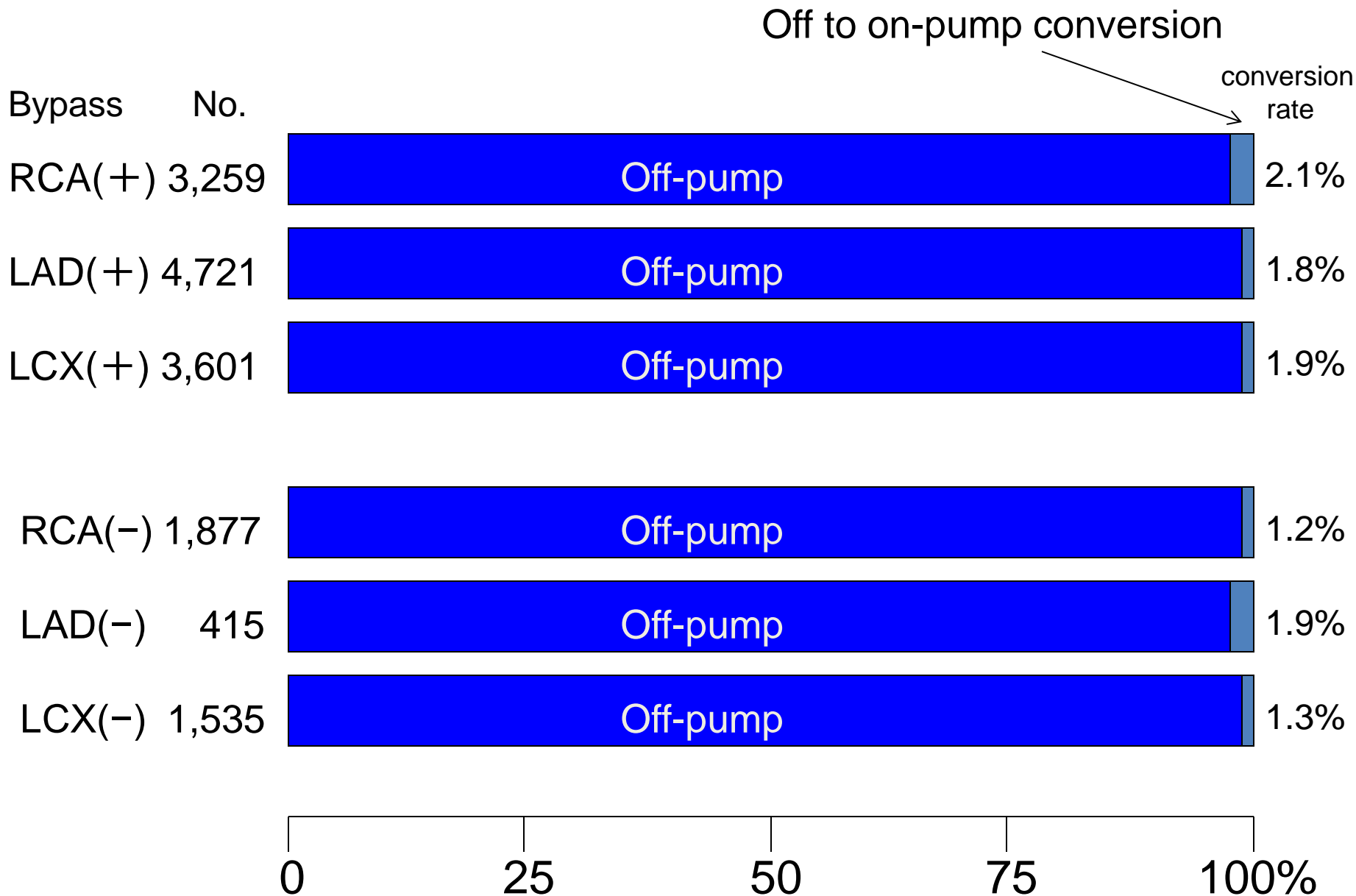
# Procedure according to graft number (Initial elective CABG)



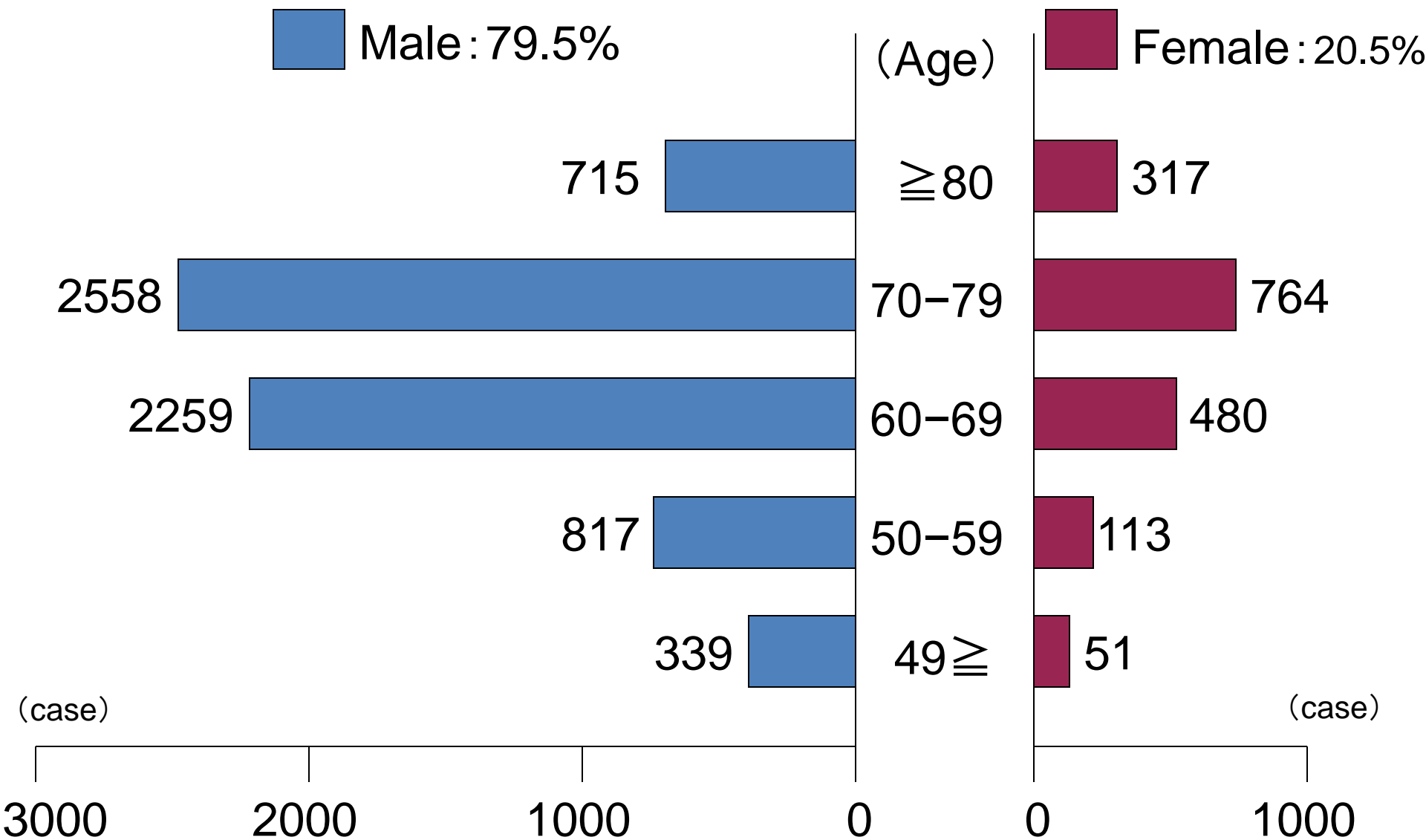
# On-pump (arrest) vs. off-pump (Initial elective CABG)



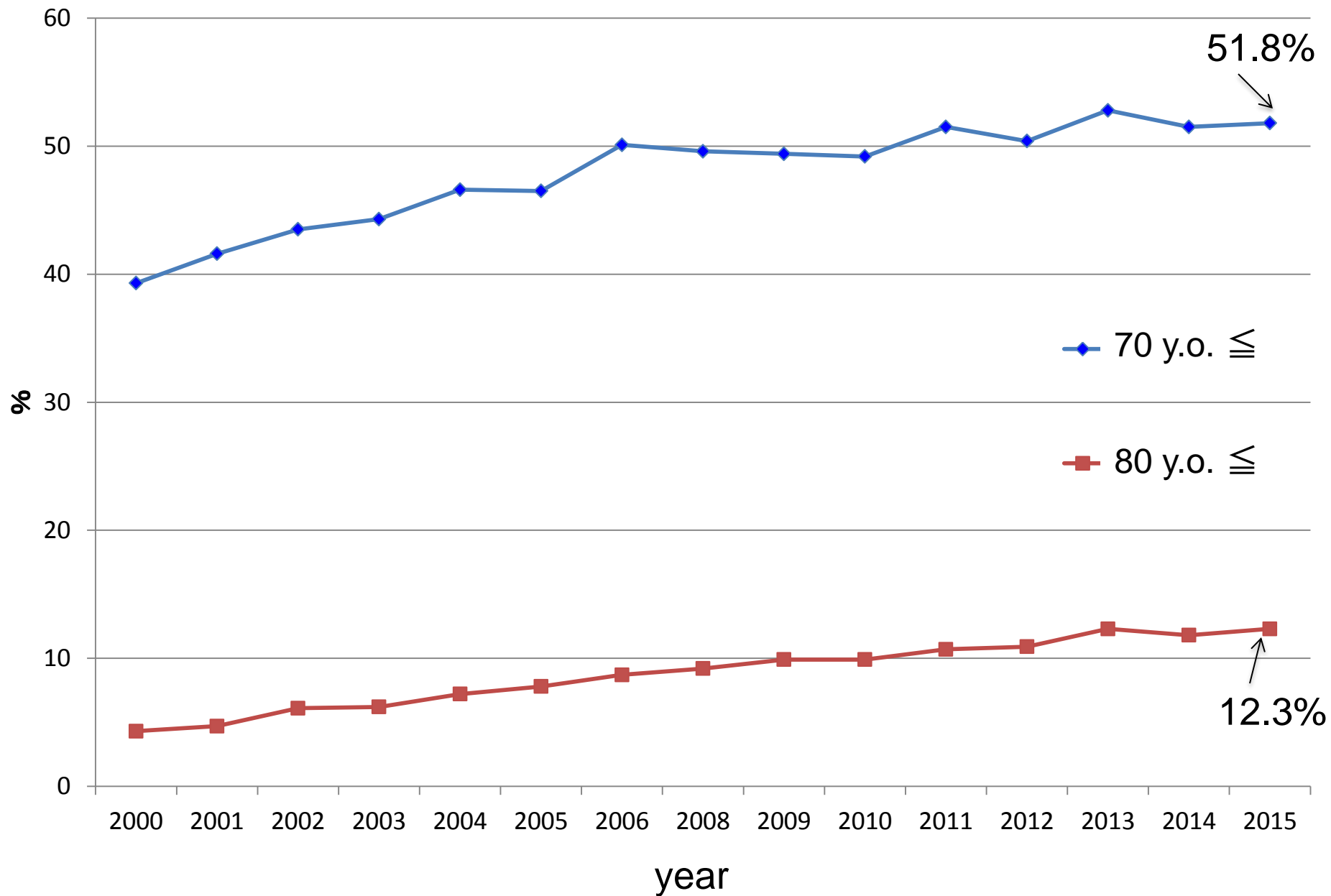
# Off-pump vs. off to on-pump conversion (Initial elective CABG)



# Age distribution according to gender (Initial elective CABG)

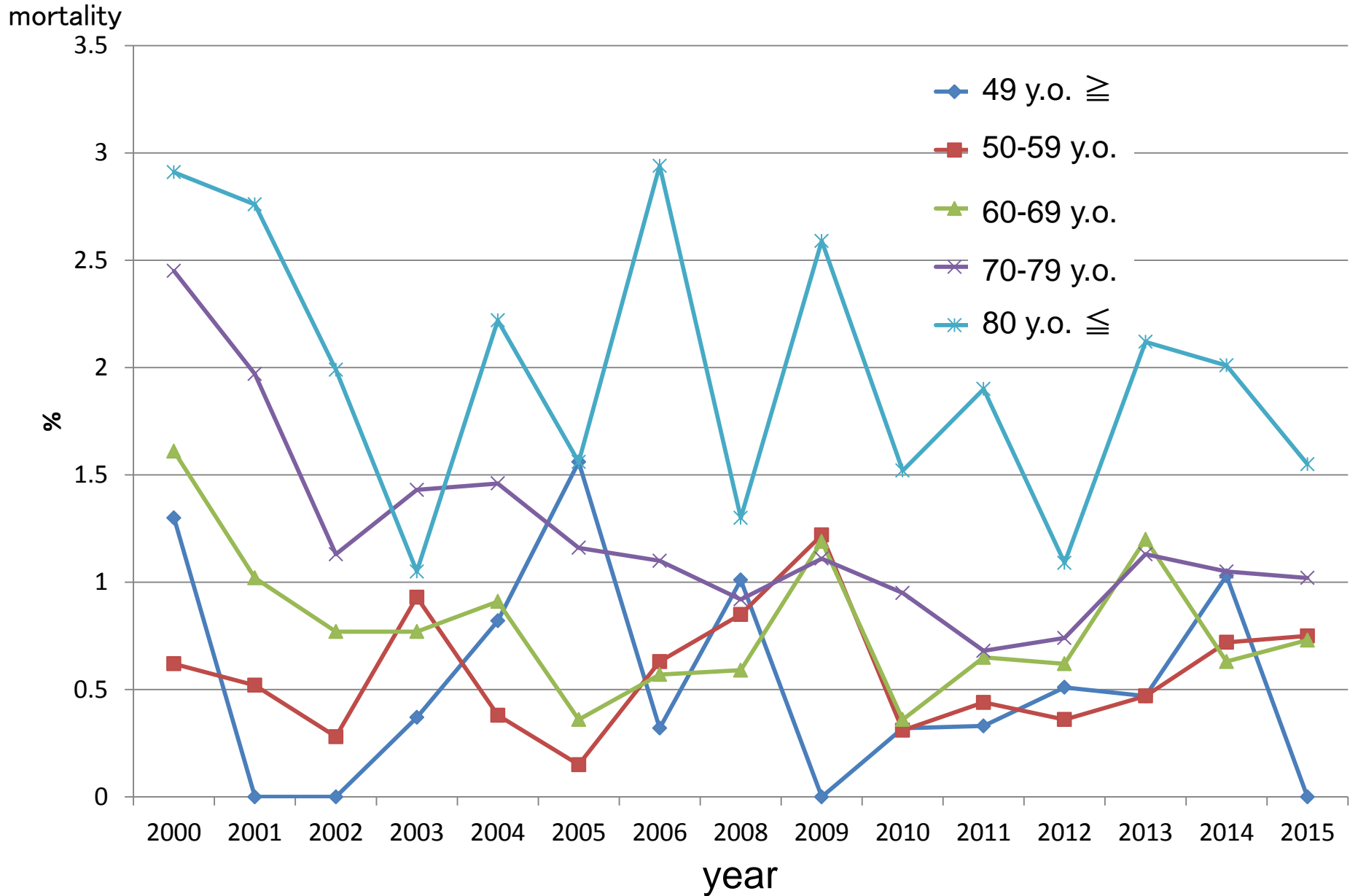


# Changes of elderly cases (Initial elective CABG)



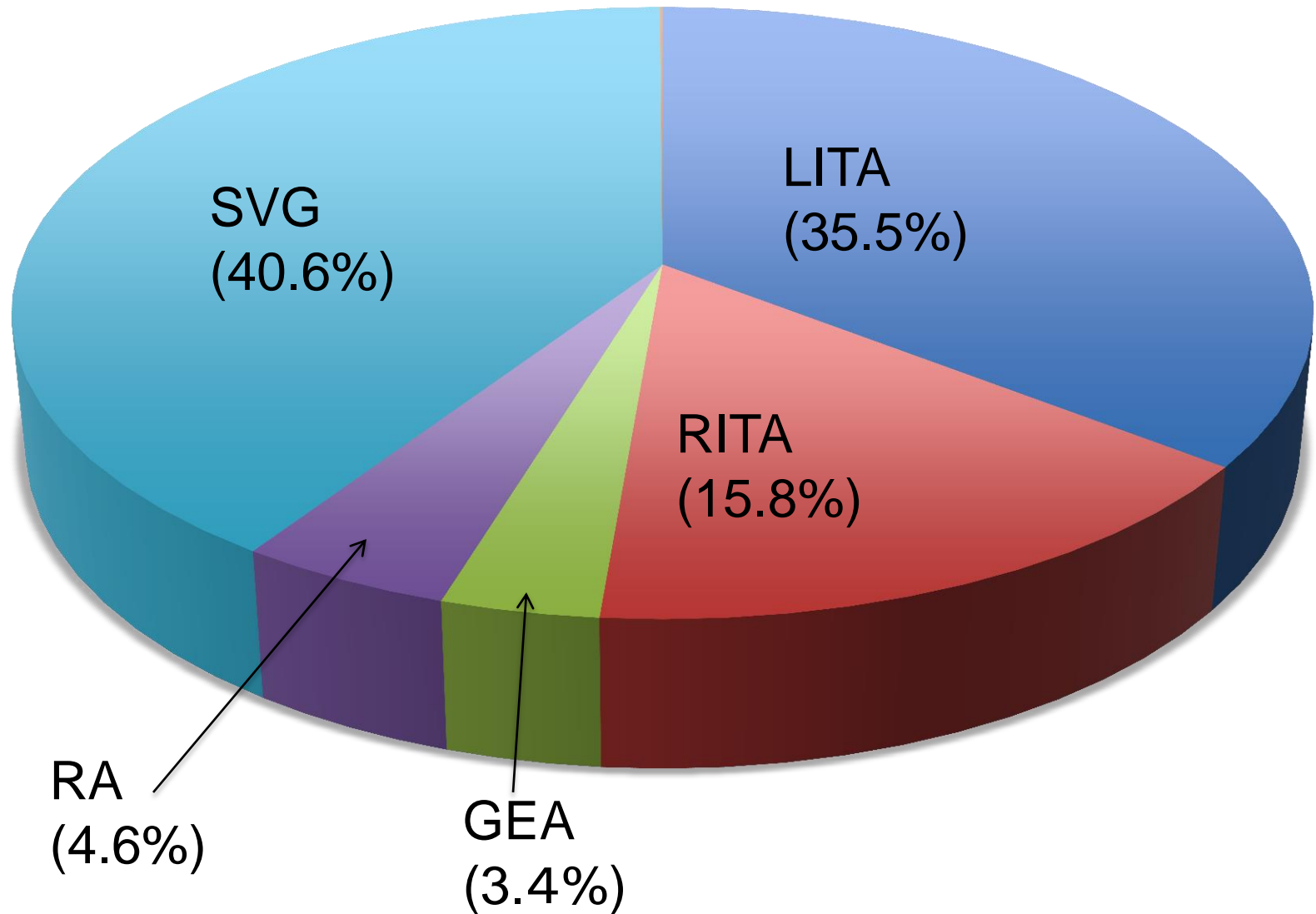


# Changes of mortality according age (Initial elective CABG)

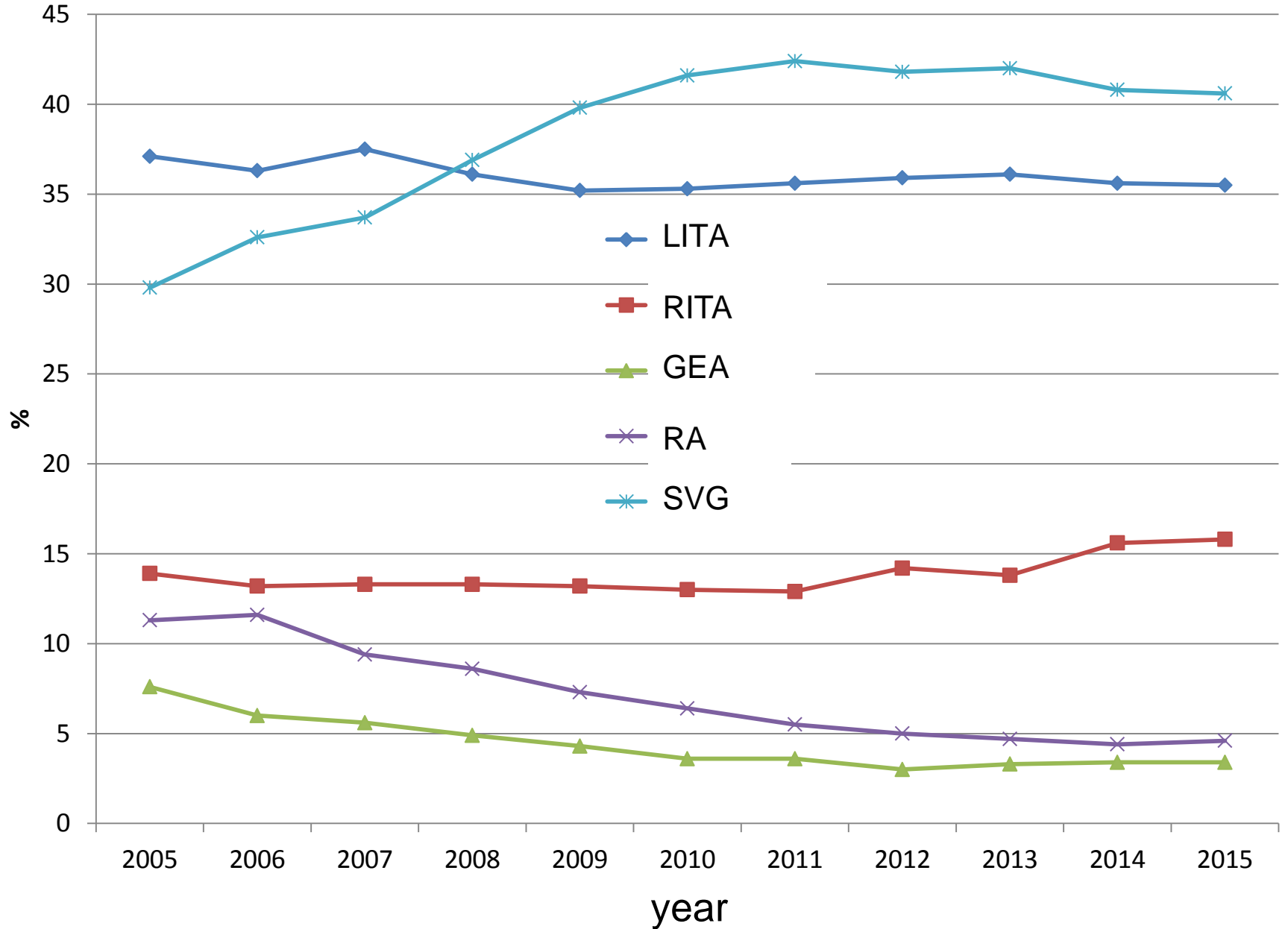


# Graft selection

(Total graft number of isolated CABG : 25,742)



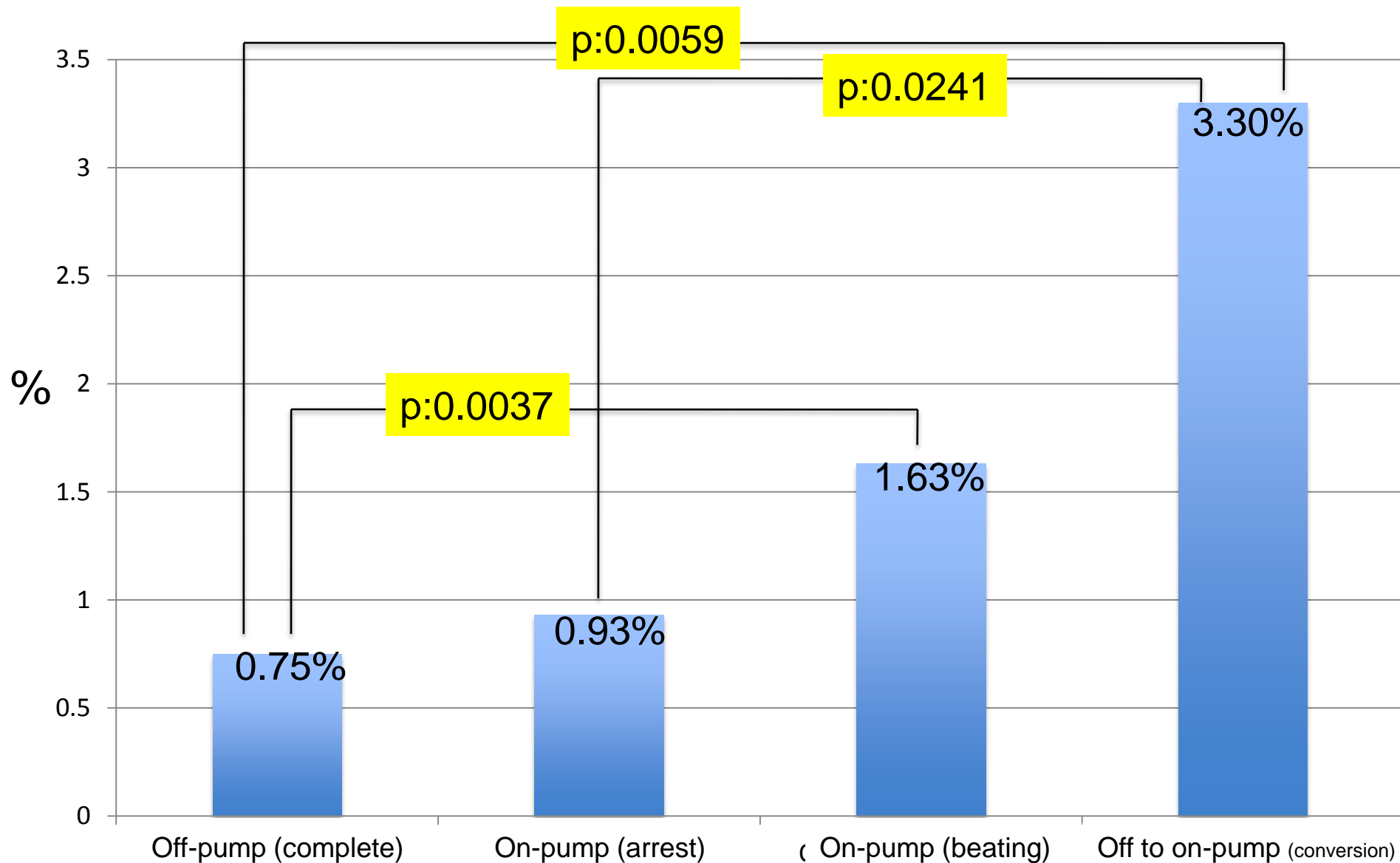
# Changes of graft selection



# Stroke rate according to procedures (Isolated CABG)

Stroke cases: 91

Stroke rate:  $91/9707$  (isolated CABG) = 0.93%



# Results of emergency CABG after PCI complications

Emergency CABG; operation after PCI complications (coronary occlusion and/or bleeding), within 24 hours

Cases : 69

Rate : 69 / 9707 (isolated CABG) ; 0.71%

Death cases : 12

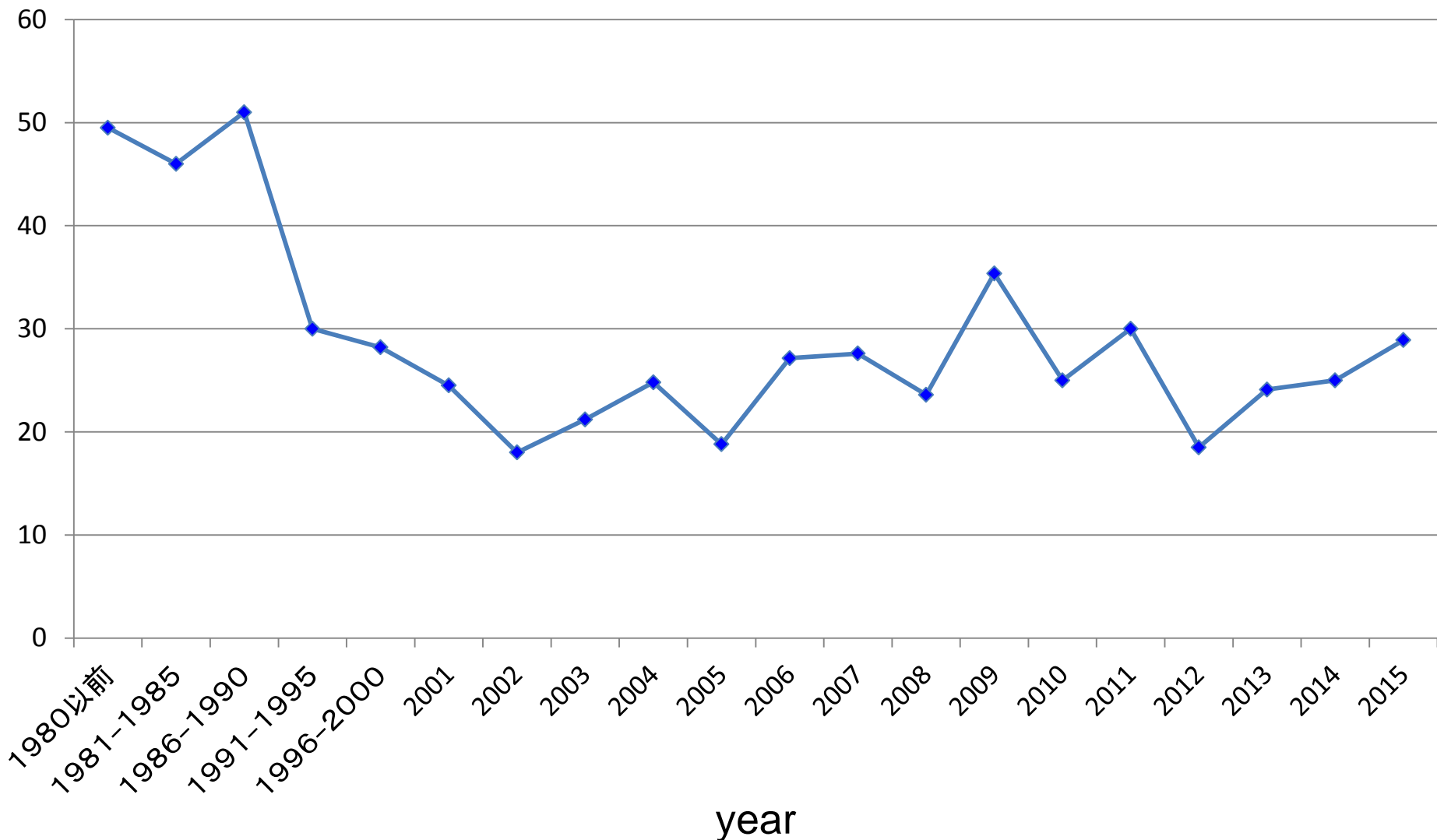
Mortality : 17.4%

## Results

	cases	death cases	mortality(%)
CABG①	18	4	22.2
CABG②	21	3	14.2
CABG③	19	2	10.5
CABG④	8	3	37.5
Other procedures	3	0	0

# Changes in results of ventricular septal perforation

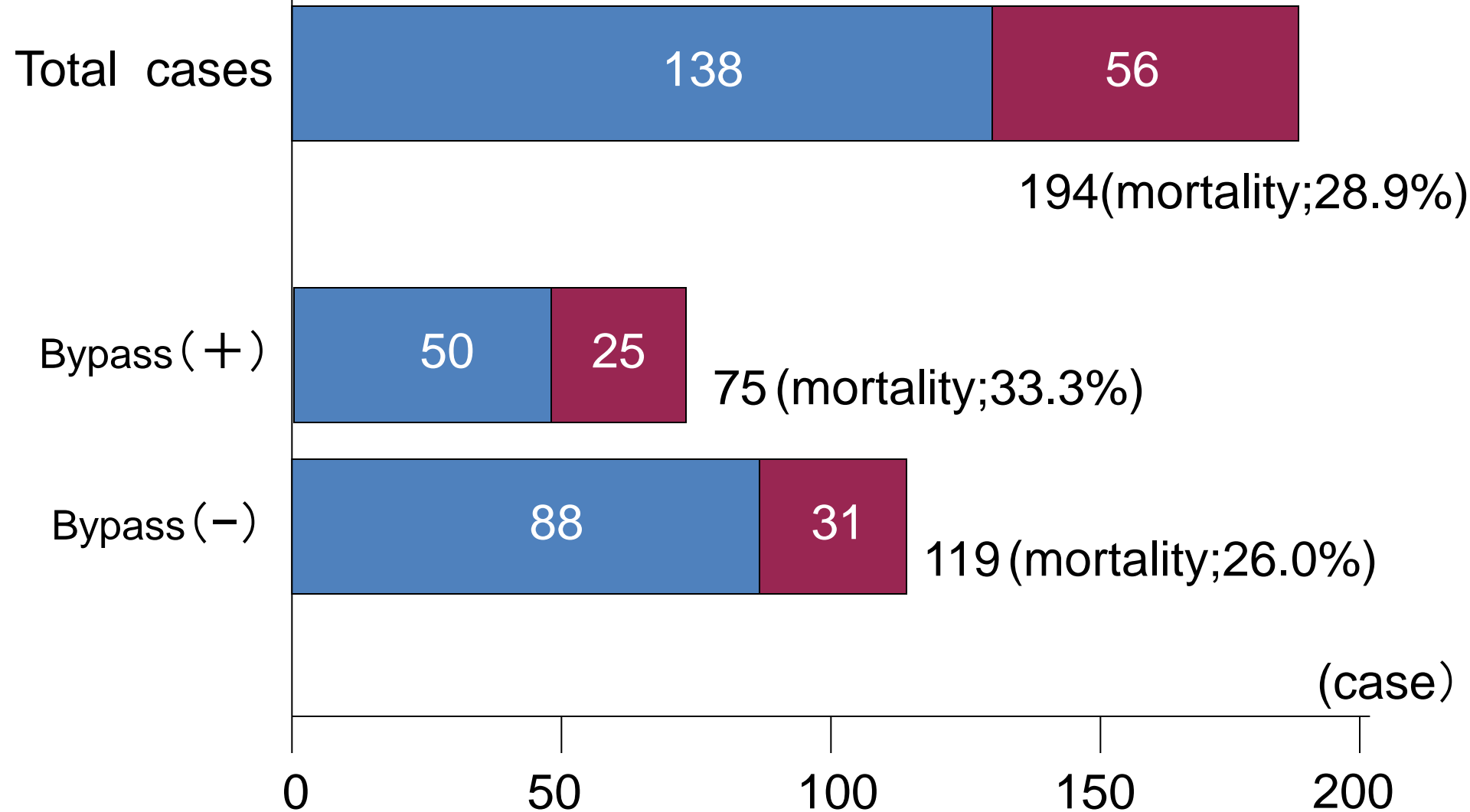
mortality(%)



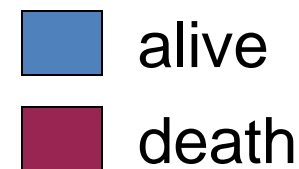
Total No. : 194, death : 56 (mortality : 28.9%)

# Results of ventricular septal perforation (1)

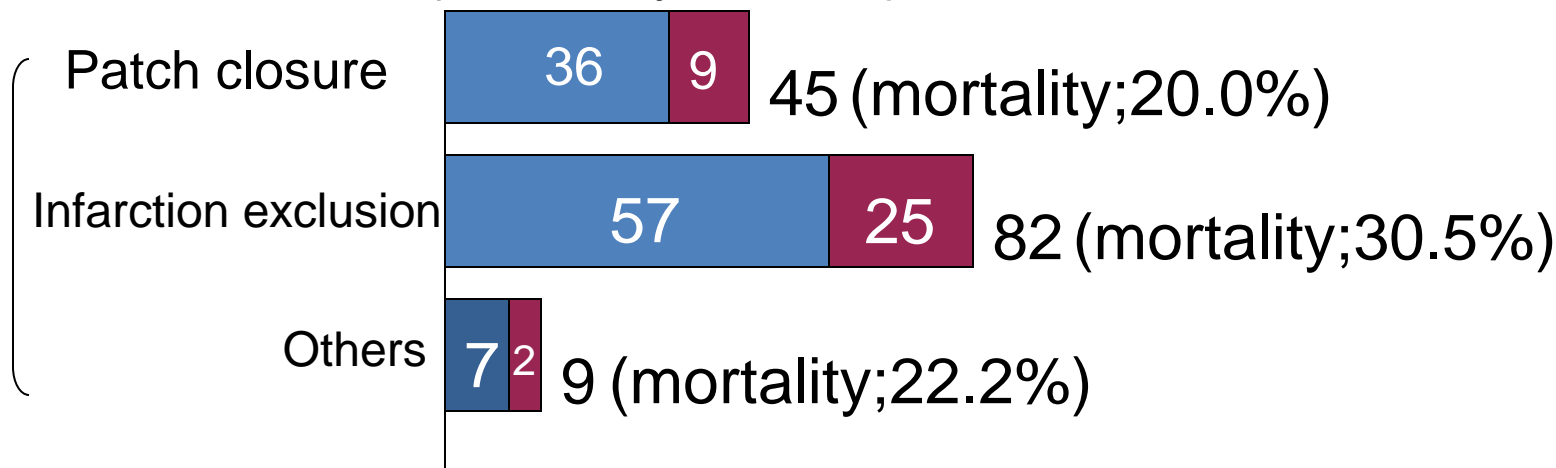
alive  
death



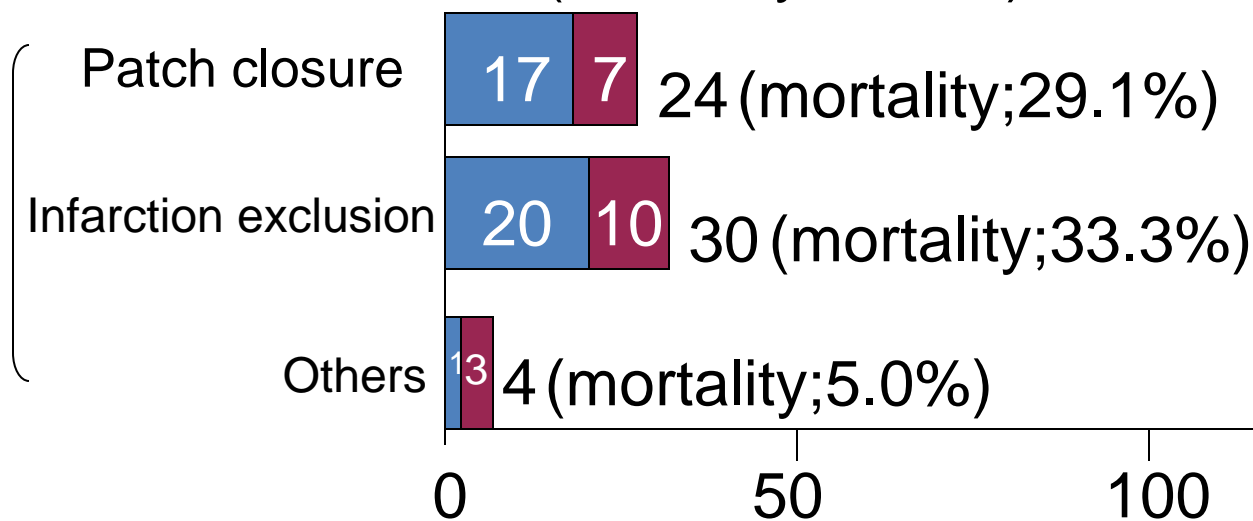
# Results of ventricular septal perforation (2)



## Anterior infarction(mortality;26.4%)



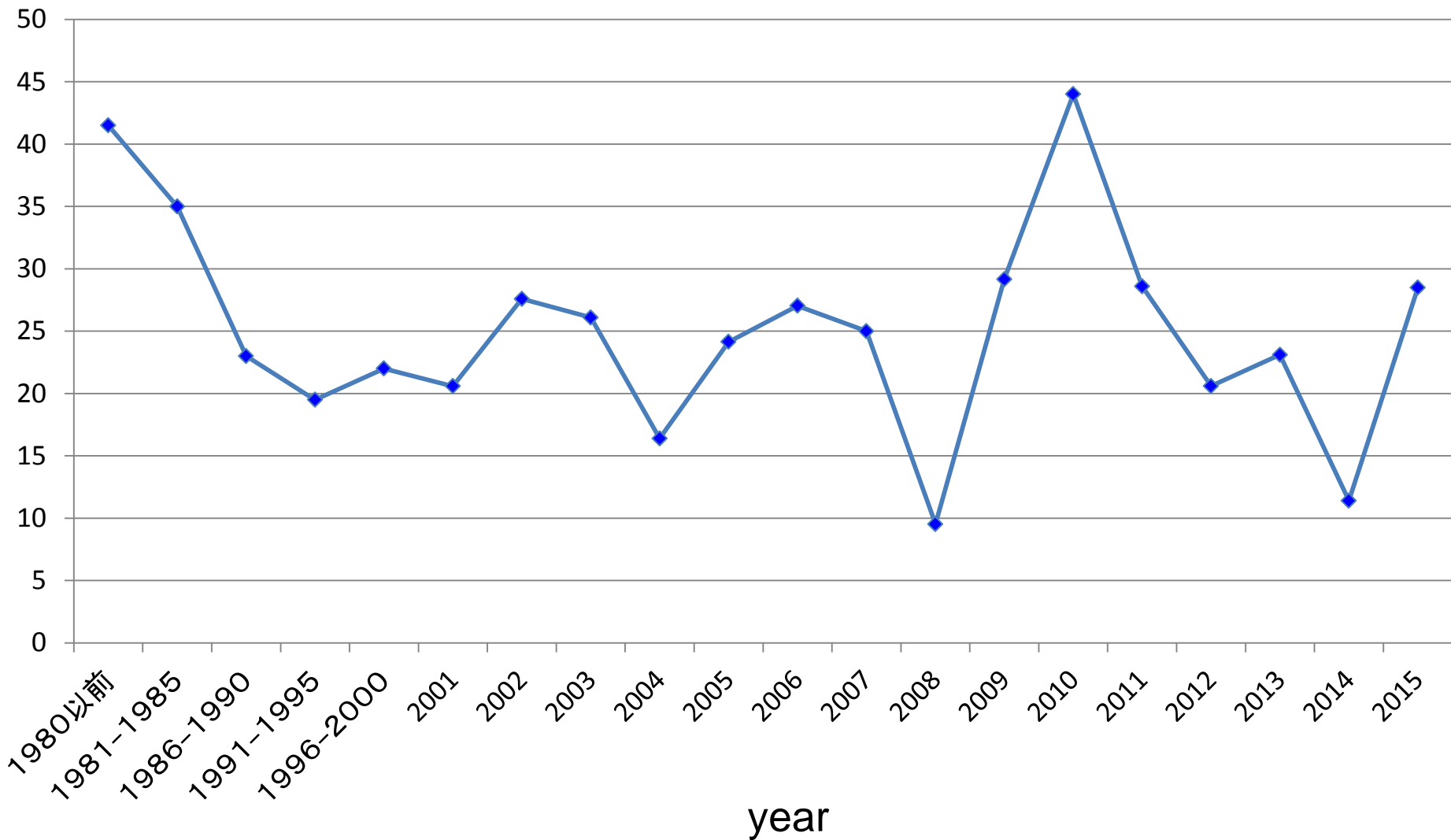
## Post-inferior infarction(mortality;34.4%)





# Changes in results of papillary muscle rupture

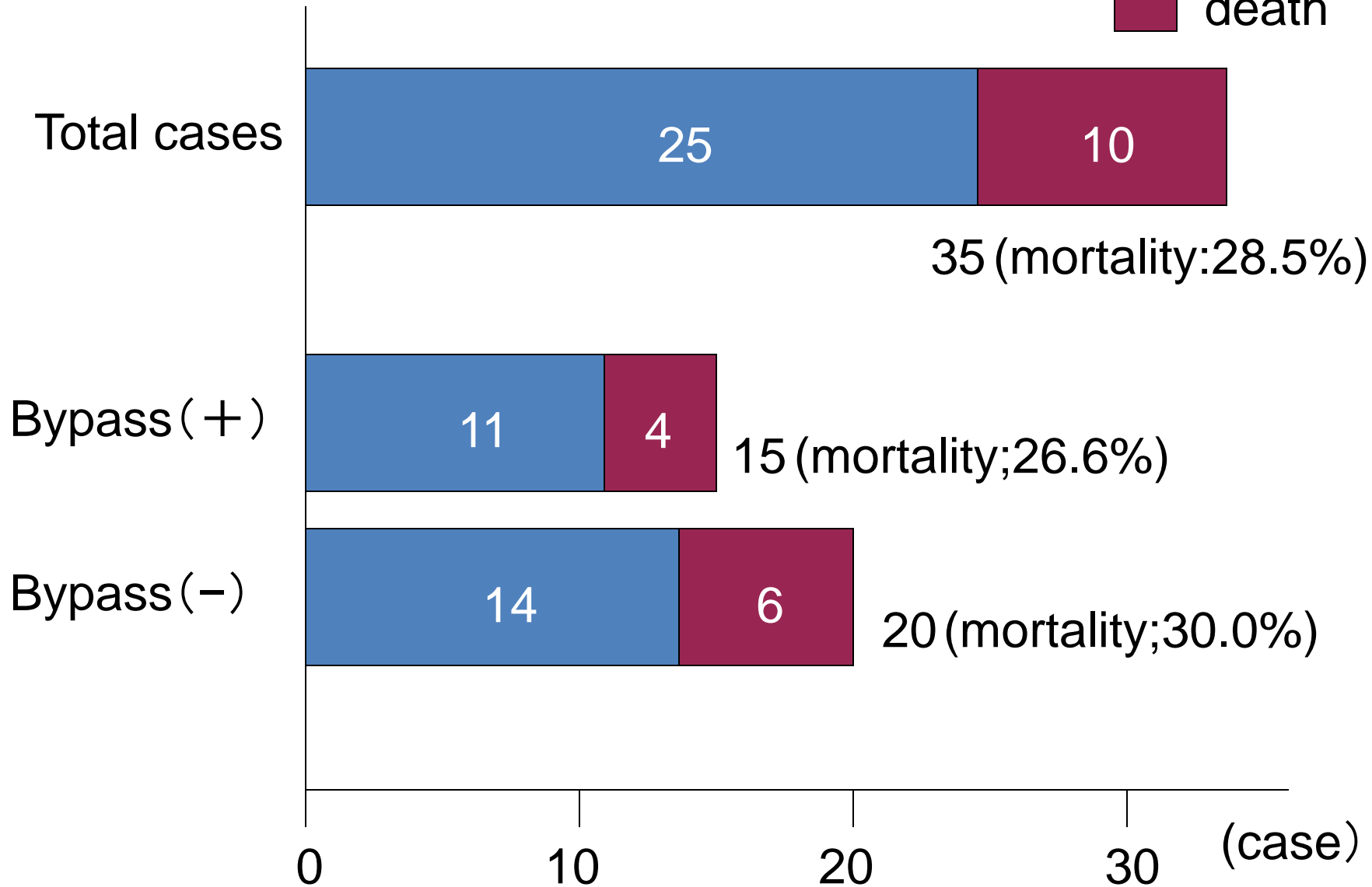
mortality(%)



Total No. : 35, death : 10 (mortality : 28.5%)

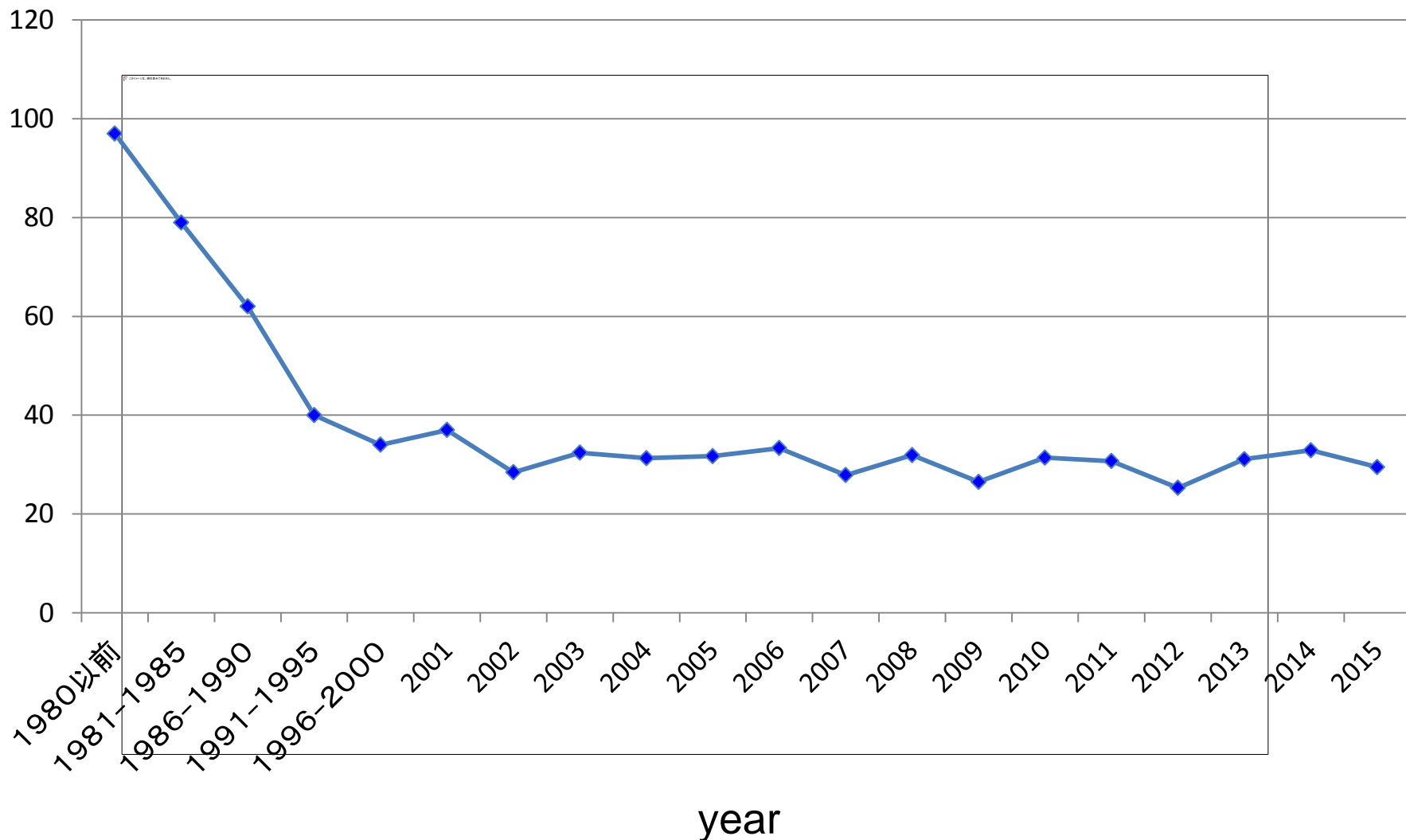
# Results of papillary muscle rupture

alive  
death



# Changes in results of free wall rupture

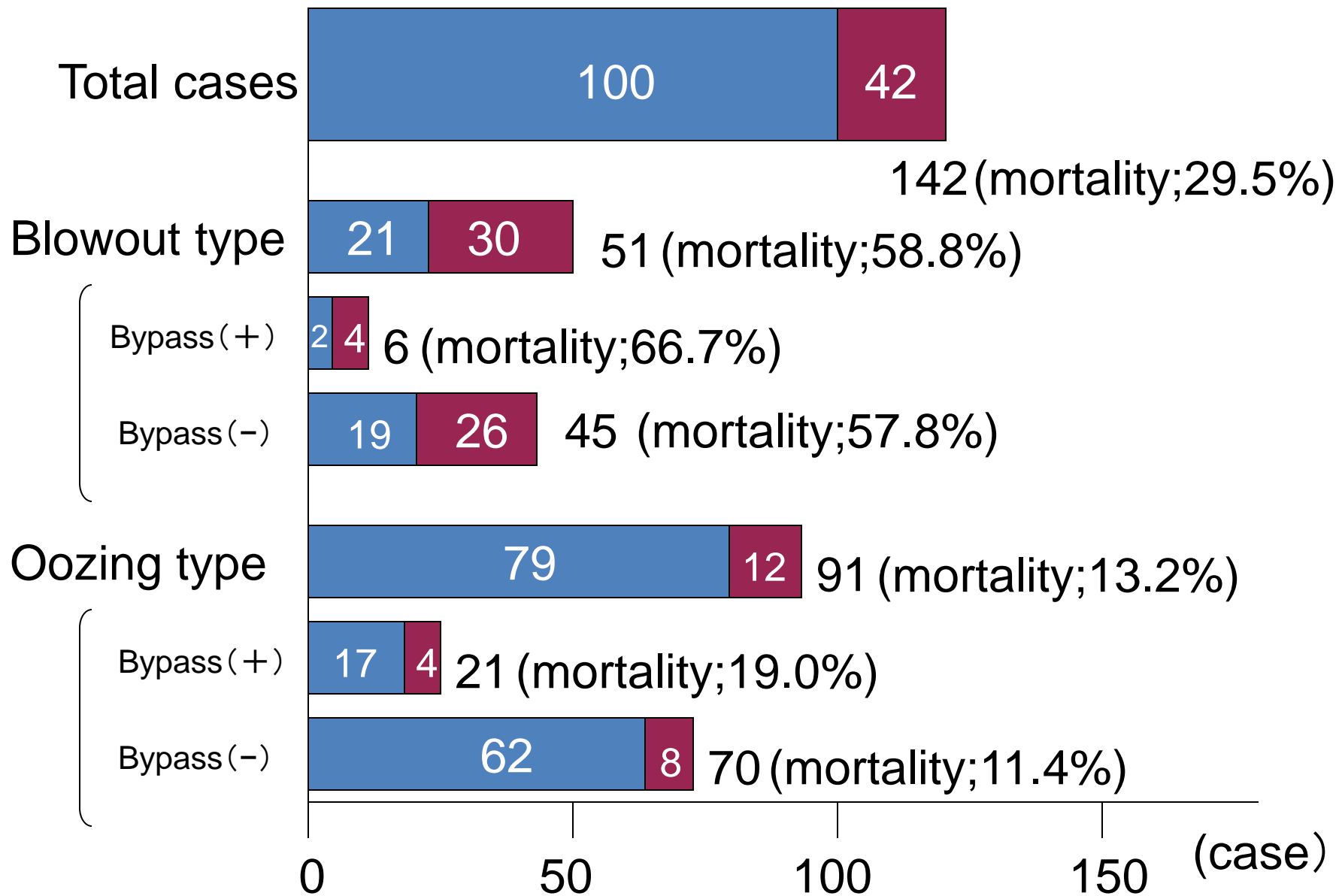
mortality(%)



Total No. : 142, death : 42 (mortality : 29.5%)

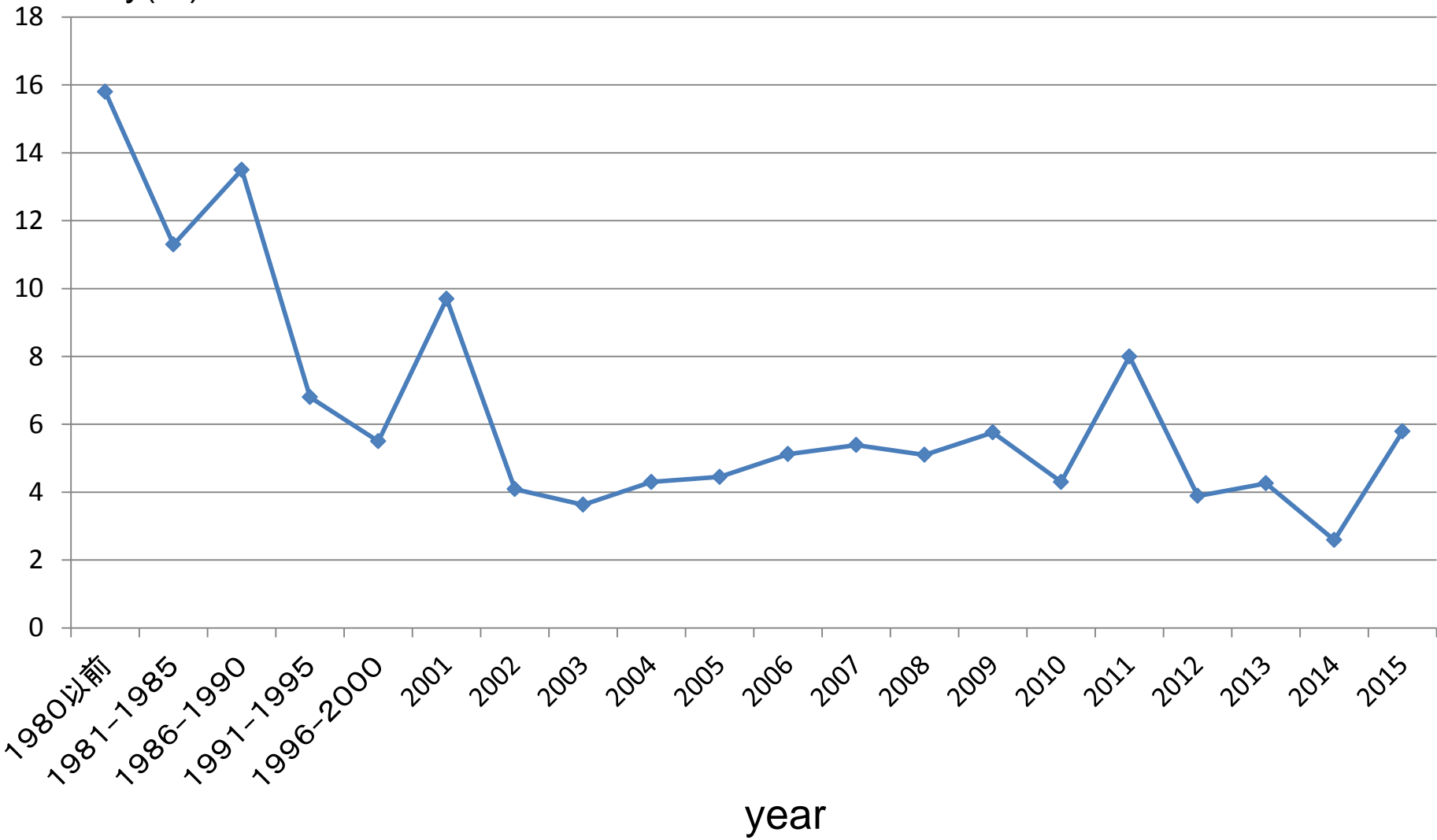
# Results of free wall rupture

alive  
death



# Changes in results of left ventricular aneurysm (LVA)

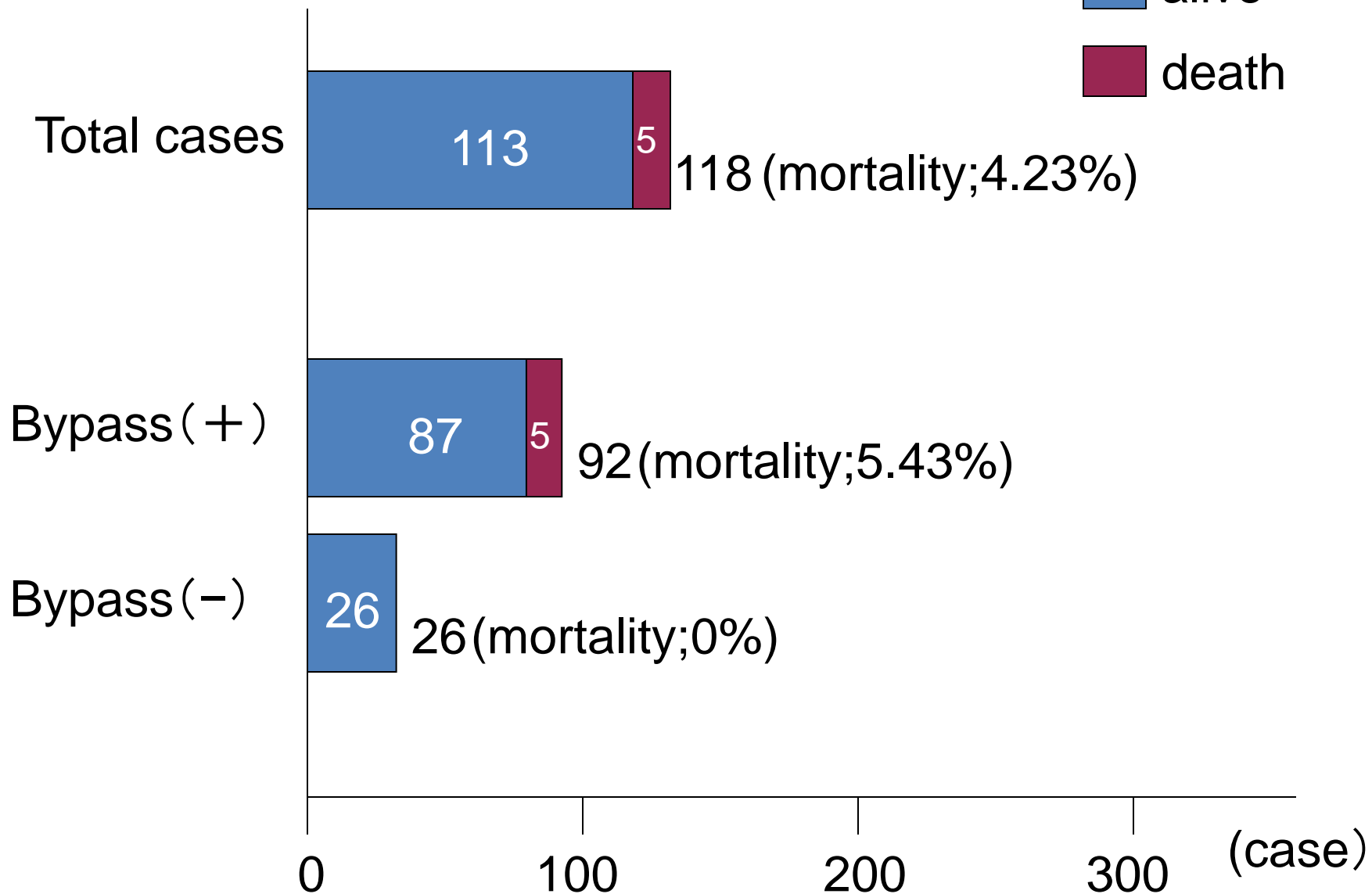
mortality(%)



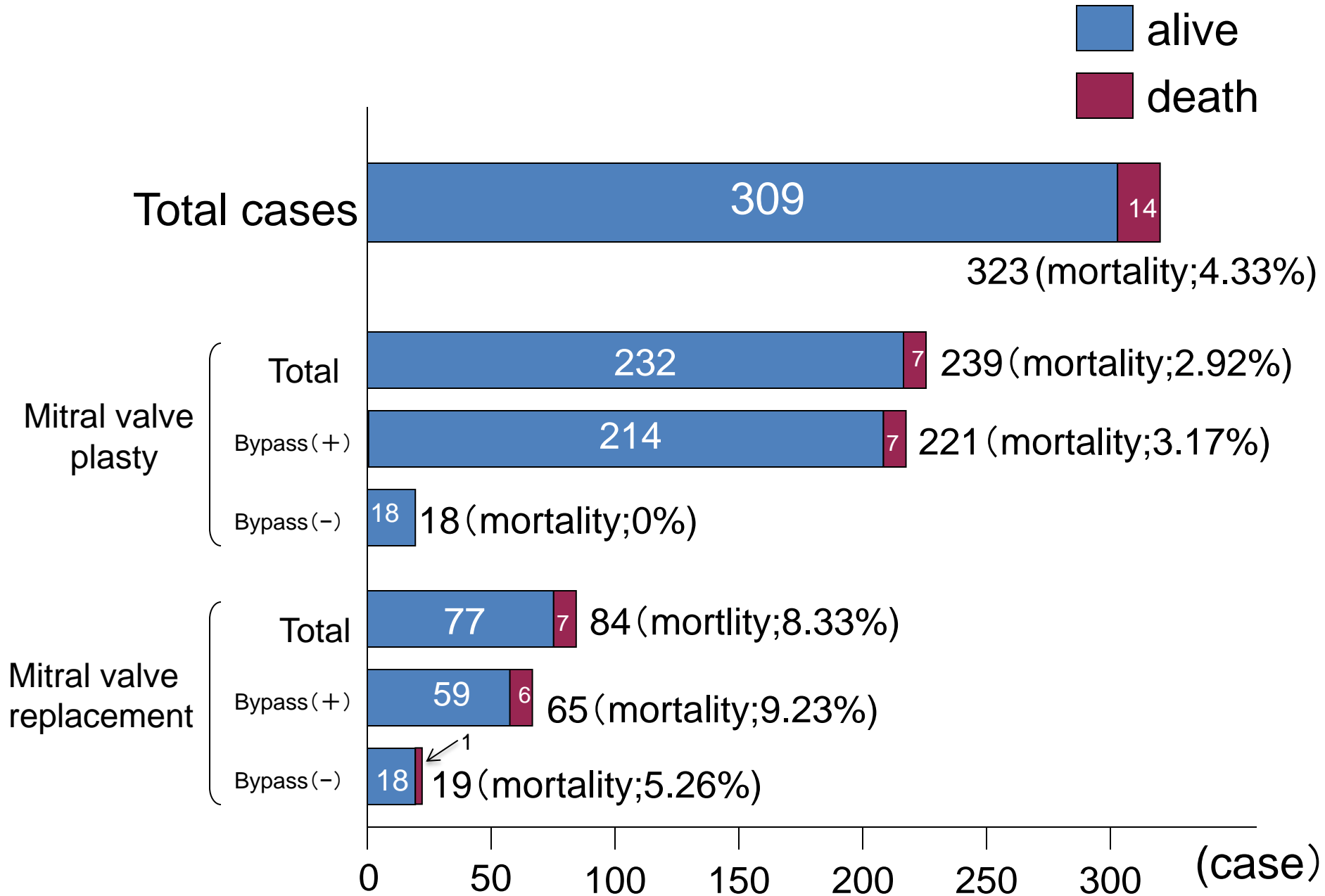
Total No.: 207, death: 12 (mortality: 5.79%)

# Results of left ventriculoplasty and/or aneurysmectomy

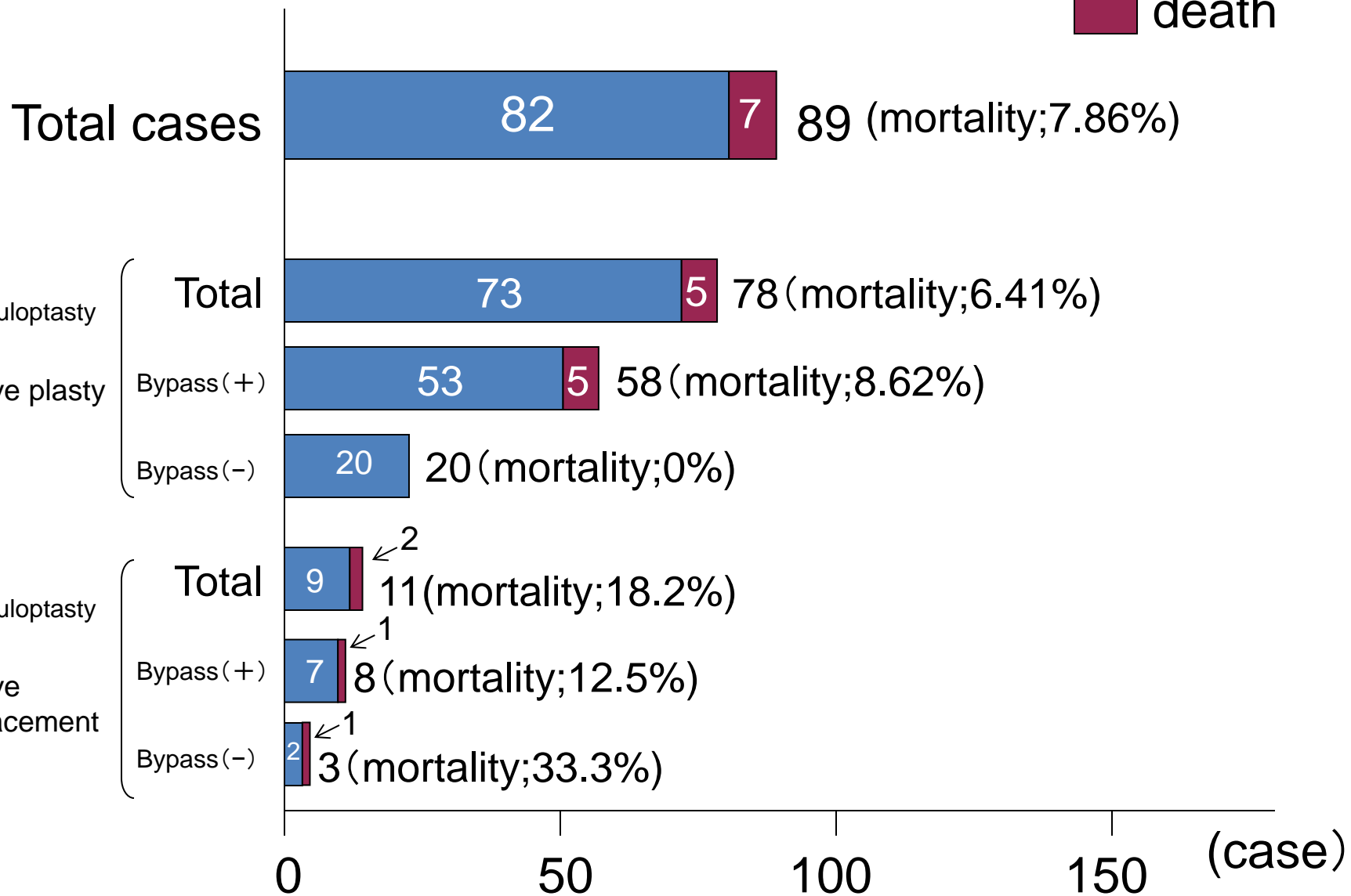
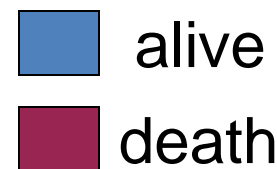
alive  
death



# Results of MVR or MVP for ischemic MR



# Results of ischemic MR+LVA or ischemic cardiomyopathy





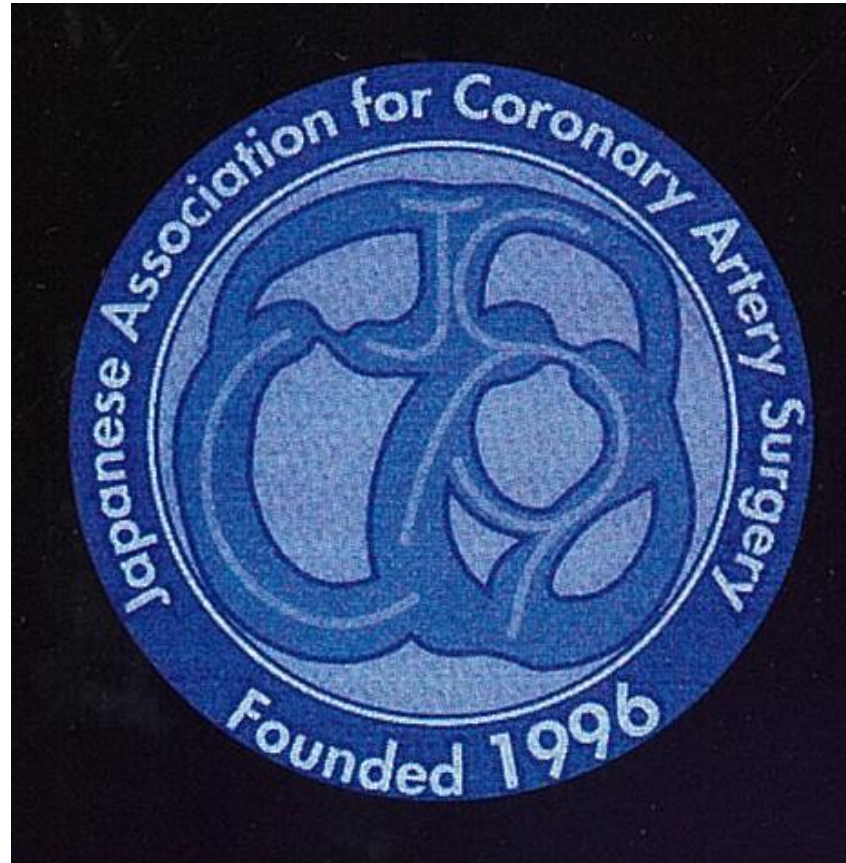
# Conclusions (1)

1. The mortality of isolated CABG was 1.72%, that of initial elective CABG was 0.83%, indicating excellent results than that of previous year.
2. Of initial elective CABG, 63% cases underwent off-pump procedure, showing still high rate. The mortality of off-pump was 0.54%, which was better than that of previous year, indicating excellent results.
3. Off to on-pump conversion rate was 1.8%, and the mortality of those cases was 4.4%, resulting getting worse.
4. The more bypass number, the lower the off-pump rate. However, of all 4 and/more bypass procedures, 58.5% cases were done by off-pump CABG.
5. CABG cases is getting older year by year, more than 70 years old patients rate was 51.8%, more than 80 was 12.3%, showing highest rate.

## Conclusions (2)

6. Arterial grafts were used in 60% of all grafts, while vein grafts were used in 40%.
7. The complication rate of central nerve system stroke of all isolated CABG was 0.93%. This rate of off-pump CABG showed significantly lower than those of on-pump (beating) and off to on-pump conversion procedures, resulting OPCAG can avoid this complication.
8. After PCI complications, emergency operation underwent in 071% of all isolated CABG within 24 hours. The mortality of those cases was 17.4%, showing still high rate.
9. As for results of complications for acute and old myocardial infarction, the mortality of post-inferior VSP, papillary muscle rupture and blowout type free wall rupture, were high rate, indicating worse prognosis.

# Special survey of heart team for coronary artery surgery, in 2016



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

## Question 1

; How many CAG cases did you perform in your institute /year?

mean : 856, max. : 6,500, min. : 0

## Question 2

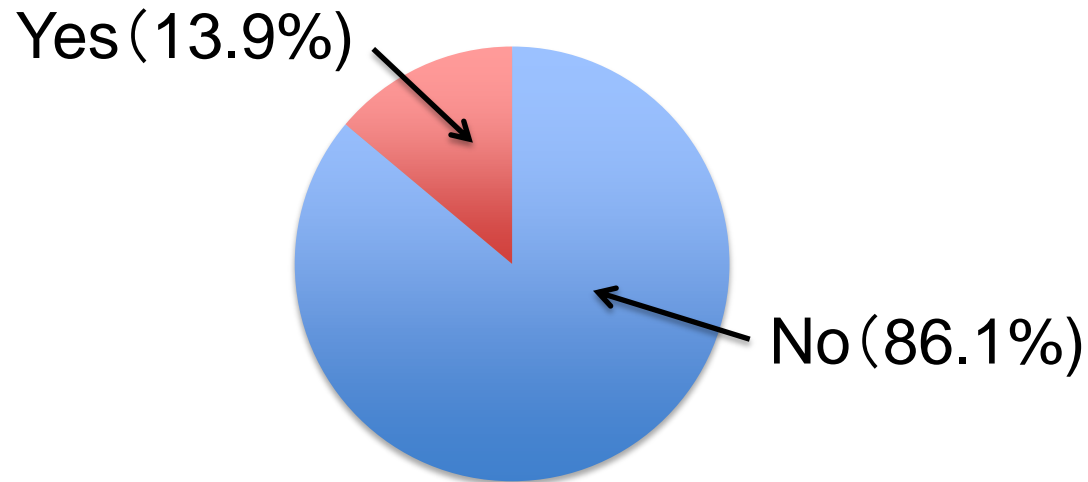
; How many PCI cases did you done in your institute /year?

mean : 350, max. : 2,539, min. : 18

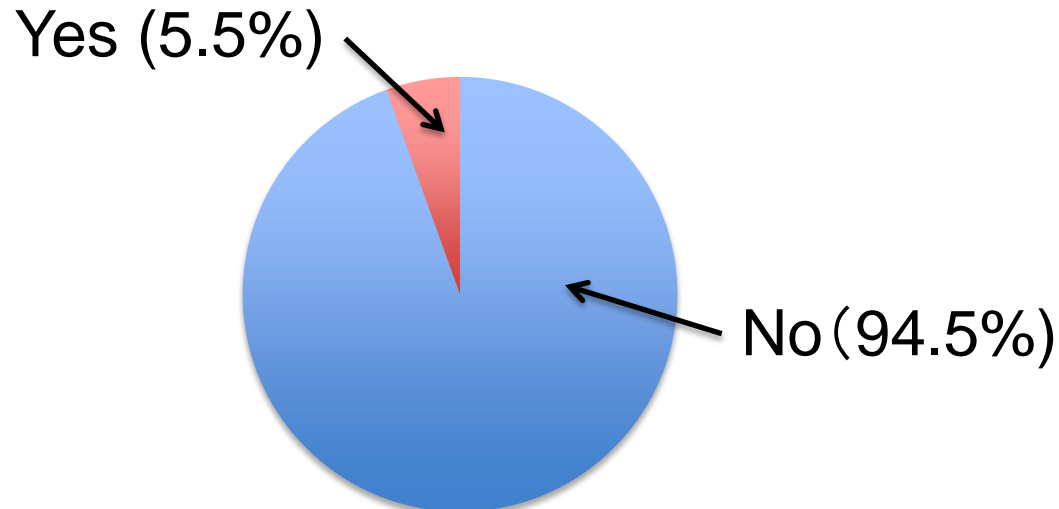
## Question 3

; How many CABG cases which were refered from same institute /year? mean : 19, max. : 85, min. : 0

## Question 4; Do you have heart team conference?



## Question 5; Do this conference hold regularly?



Question 6 ;How frequent do the conference hold?

mean : 1.15/week

max. : 6/week

min. : 0.25/week (1/month)

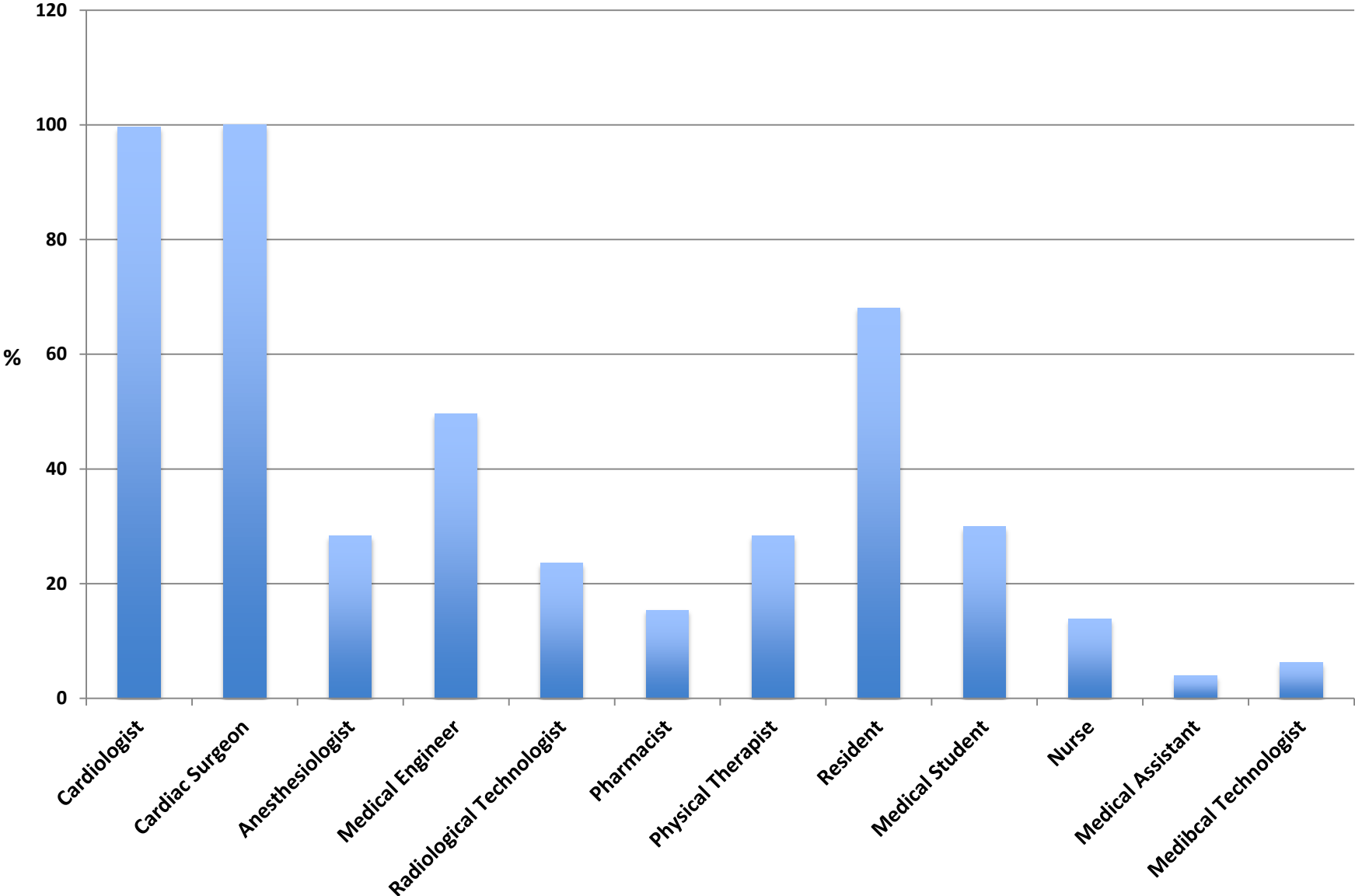
Question 7 ;How many people do attend the conference?

mean : 17

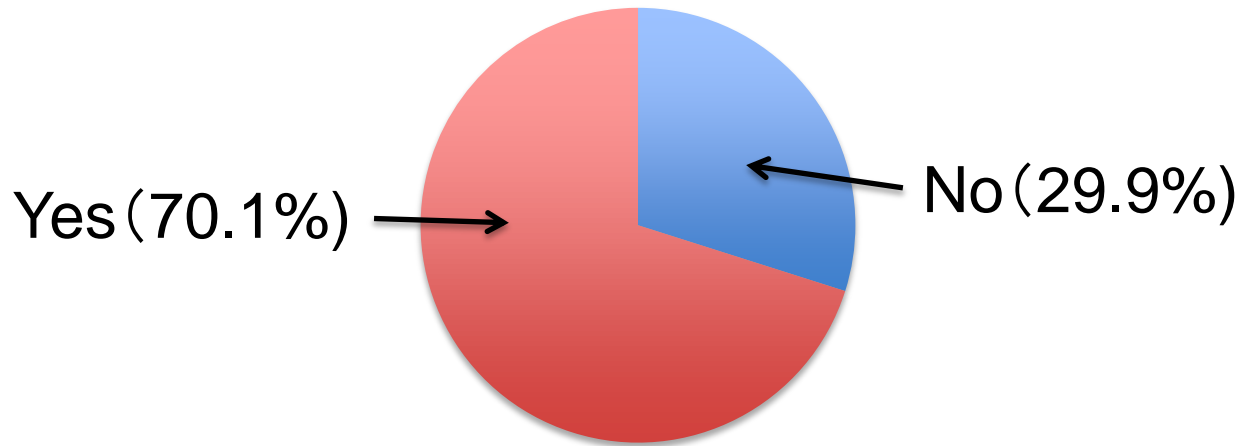
max. : 50

min. : 4

# Question 8; What kind employment do attend the conference?



**Question 9**; Do you have any standard to discuss in the conference?



**Question 10**

; Do you discuss the cases directly refer from out of institute?

