Figure 1: CRP structure

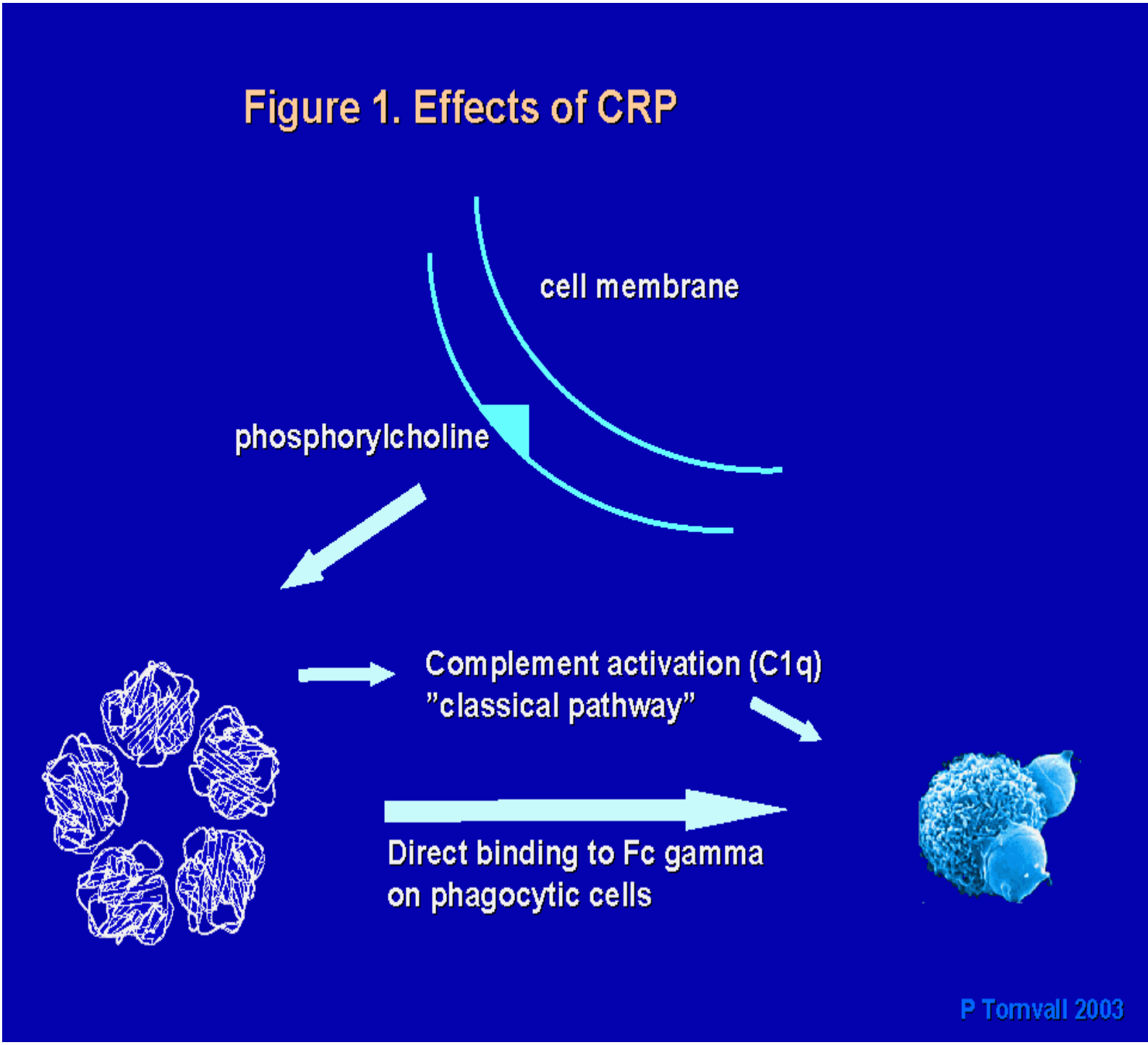


Figure 2: Stimulation of C-reactive protein (CRP). IL-6, interleukin-6; WBC, white blood cells.

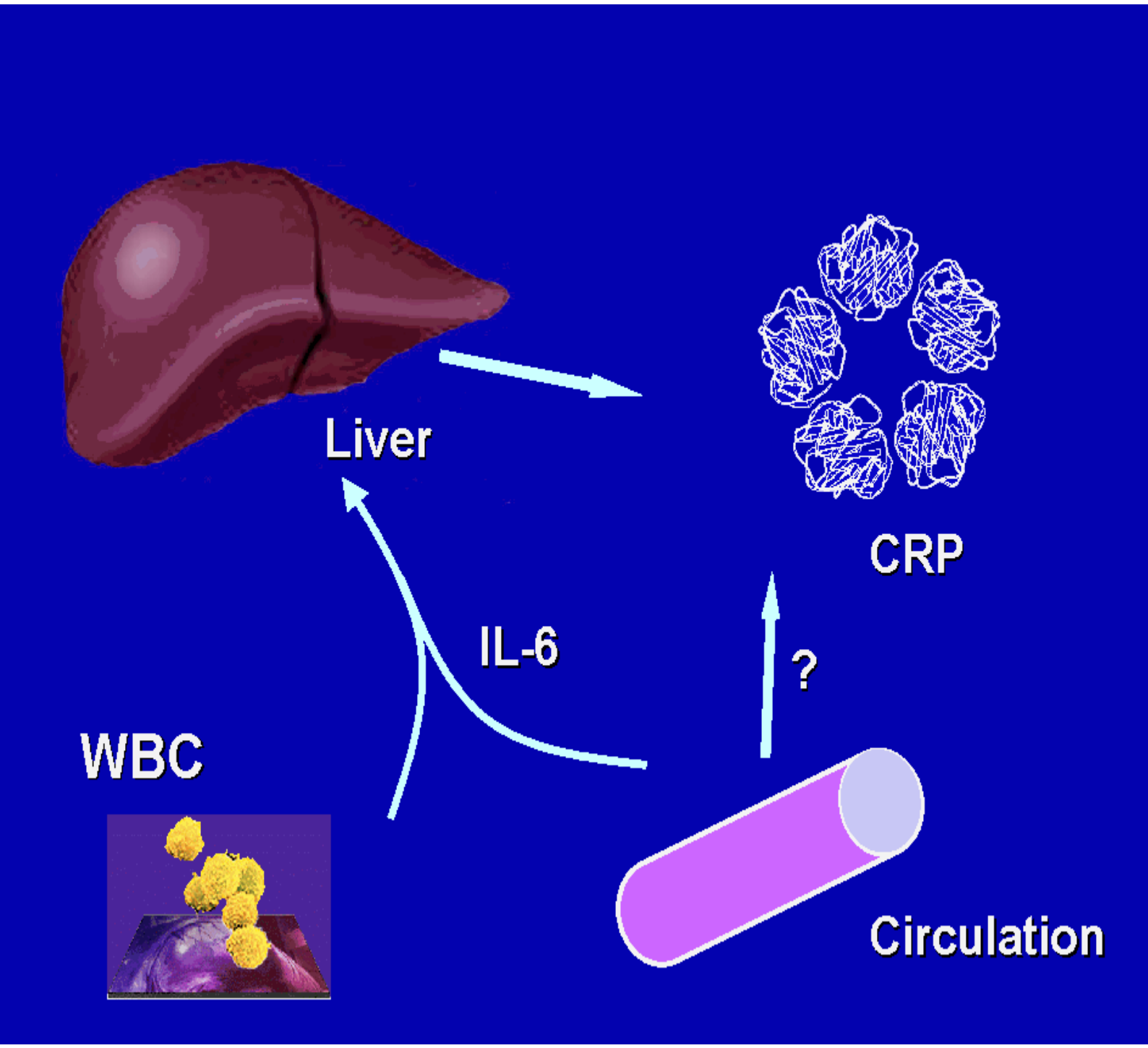


Table 1: Overview of studies of the predictive value of a preprocedural C-reactive protein (CRP) determination

	Patients	Marker of myocardial injury	CRP cut-off	Follow-up	End-point	Outcome
Buffon JACC 1999	121 SA & US	CK-MB	> 3 mg/l	Hospital 1 year	- Early reccurence of ischemia - Restenosis	0% vs 22% 27% vs 63%
Zohu Am J Cardiol 1999	75 SA	Not defined	> 5 mg/l	6 months	Restenosis	28% vs 41%, ns
Chew Circulation 2001	727 SA & US	CK-MB	> 11 mg/l (highest quartile)	30 days	Death/MI	OR 3.68 (vs lowest quartile)
Lenderlink Eur H J 2002	1234 ACS	CK-MB & TnT	> 10 mg/l	4 years	MACE	23% vs 15% .
Rahel Cardiovasc Research 2003	600 SA	CK-MB	continuous parameter	8 months	MACE	Lp A and fibrinogen associated with MACE. CRP only associated with repeat angina
Winter Eur H J 2002	501 SA	Not defined	> 3 mg/l	2 years	MACE	RR 2.77
Winter Am J Med 2003	1458 SA & ACS	CK-MB	> 3 mg/l	1 year	Death/MI Revasculari zation	RR 4.4
Dibra Am J Med 2003	651 SA	Not defined	> 5 mg/l	1 year	Death/MI Restenosis	5% vs 10% Not associated with restenosis

ACS, acute coronary syndrome; CK-MB, creatinine kinase MB; CRP, C-reactive protein; MI, Lp A, lipoprotein A; myocardial infarction; MACE, major adverse cardiac events i.e. death, non-fatal myocardial infarction and the need of repeated revascularization; ns, no significant; OR, odda ratio; RR, relative risk; preCRP, preprocedural CRP; SA, stable angina pectoris; TnT, troponin T; UA, unstable angina pectoris; y, year.

Table 2: Overview of studies of the predictive value of the C-reactive protein (CRP) reponse to PCI determination

	Patients	Marker of myocardial injury	CRP Cut-off	Follow-up	End-point	Outcome
Azar Am J Cardiol 1997	42 SA	CK-MB & TnI	> 5 mg/l	6 months	Restenosis	Inconclusive
Gaspardone Am J Cardiol 1998	81 SA	CK-MB & TnT	> 5 mg/l	1 year	Death/MI & Restenosis	Persistingly elevated CRP 72 h after PCI associated with cardiac events 16% vs 0%
Versaci Am J Cardiol 2000	62 US	Not defined	> 5 mg/l	1 year	Death/MI & Restenosis	CRP response associated with cardiac events in patients with elevated preCRP
Gottsauner Eur H J 2000	40 SA	Not defined	> 10 mg/l	6 months	Restenosis	Persistingly elevated CRP 96 h after PCI associated with restenosis
Liu Eur H J 2003	247 SA & US	CK-MB & TnT	continuous parameter	2 years	Death/MI or revascularization	sPLA2 associated with outcome (OR 2.1). No data about CRP

ACS, acute coronary syndrome; CK-MB, creatinine kinase MB; CRP, C-reactive protein; MI, myocardial infarction; OR. Odds ratio; PCI, percutaneous coronary intervention; preCRP, preprocedural CRP; SA, stable angina pectoris; sPLA2, secretory type II phospholipase A2; TnI, troponin I; TnT, troponin T; UA, unstable angina pectoris; y, year.

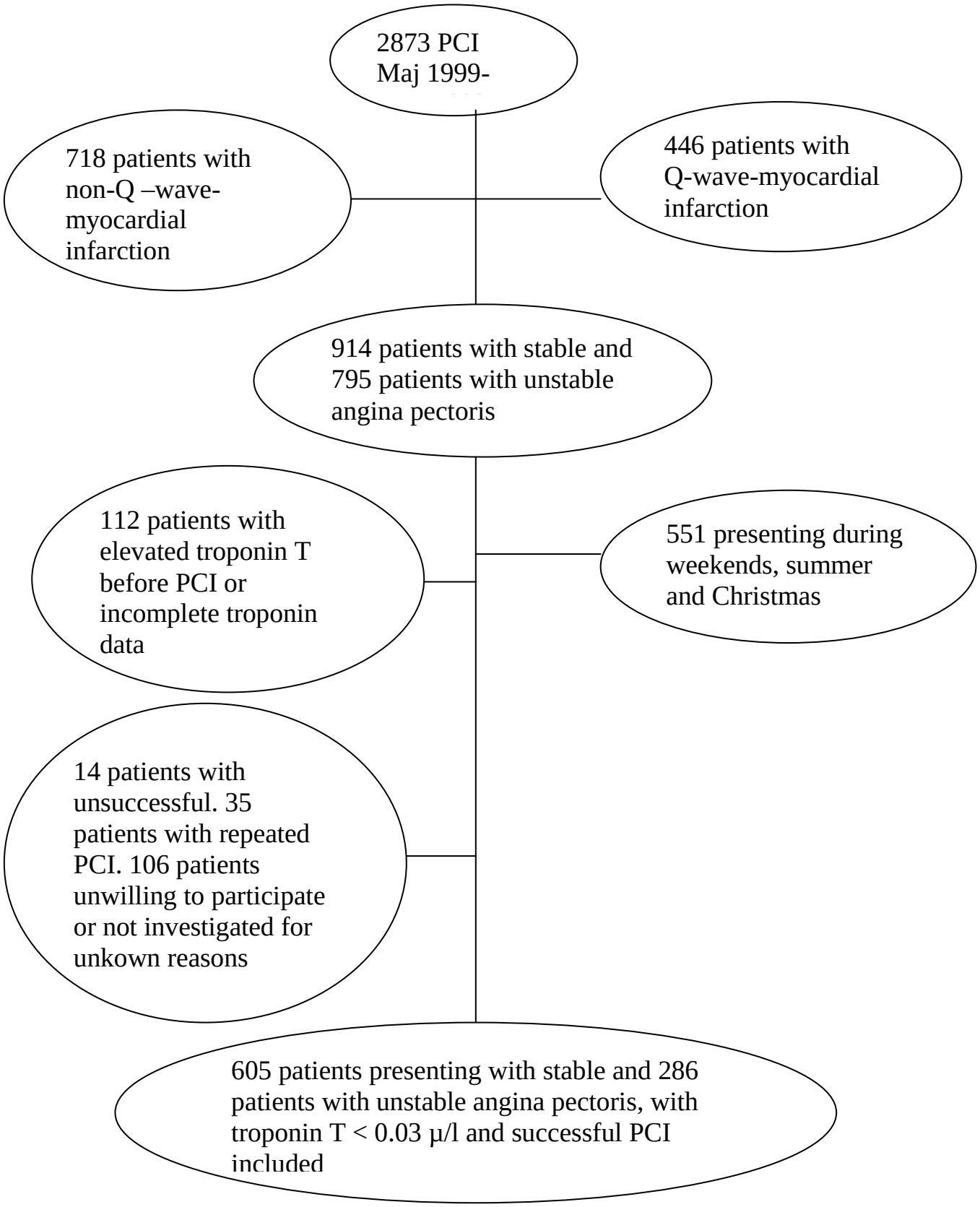


Figure 3.Scheme of inclusion of study patients.

Table 3: Overview of study subjects

Study	Recruitment period	No of patients	Age	Women/ men	Clinical Profile	Biochemical markers
I	May 1999-April 2000	400	63 ± 10.7	28/72	SA and UA	CRP and troponin T
II	January 2000-October 2002	221	65.5 ± 10.2	23/77	SA	CRP, SAA and troponin T
III	February 2001-June 2003	100	65 ± 9.7	15/85	SA	CRP, IL-6 and troponin T
IV	May 1999-June 2003	891	63.6 ± 10.7	27/73	SA and UA	CRP and troponin T

Values are means ± SD or %. CRP, C-reactive protein; SAA, serum amyloid A; IL-6, interleukin-6. SA, stable angina pectoris; UA, unstable angina pectoris.

Table 4: Lesion classification according to American Heart Association/American College of Cardiology grading system

Type A	Type B	Type C
Discrete	Tubular	Diffuse
Concentric	Eccentric	Excessive tortousity
Readily accessible	Moderate toruosity	Extremely angulated segment
Nonangulated segment	Moderately angulated segment (45º-90º)	Total occlusion
Smooth contour	Irregular contour	Inability to protect major side branch
Little or no classification	Moderate-heavy calcification	Degenerated vein graft lesion
Nonostial	Total occlusion < 3 months	
No major side branch involved	Ostial in location	
Absence of thrombus	Bifurcation lesion	
	Some thrombus present	

B1 lesions consist of 1 B characteristics and B2 lesions consists of 2 B characteristics.

Figure 4: Box plot of baseline serum C-reactive protein (CRP) levels in patients without or with myocardial infarction during percutaneous coronary intervention

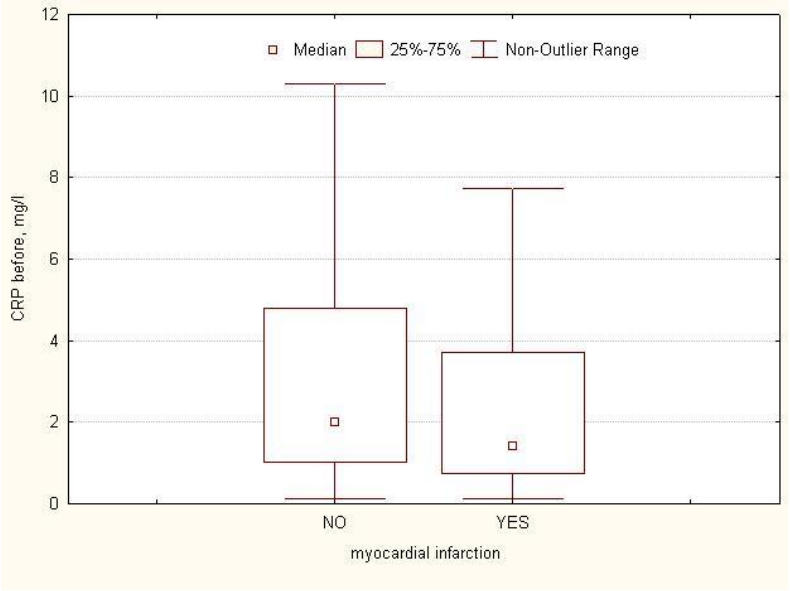


Table 5: Multivariate analysis of predictors of myocardial injury during PCI

5a

Preprocedural factors	**Odds Ratio (95% CI)**	**p value**
ACC/AHA lesion type*	1.98 (1.20-3.35)	0.008
Dilated vessels	1.78 (0.93-3.27)	0.07

5b

Periprocedural factors	**Odds Ratio (95% CI)**	**p value**
Stent use	2.68 (1.18-7.28)	0.03
Procedure time	2.15 (1.28-3.67)	0.004
Complications during PCI	3.62 (1.72-7.58)	0.0006

5c

Pre- and periprocedural factors	**Odds Ratio (95% CI)**	**P value**
ACC/AHA lesion type*	1.50 (0.86-2.64)	0.15
Dilated vessels	1.46 (0.74-2.85)	0.26
Stent use	2.51 (1.09-6.81)	0.04
Procedure time	1.86 (1.07-3.26)	0.02
Complications during PCI	3.32 (1.56-7.07)	0.001

PCI; percutaneous coronary intervention. *ACC/AHA; American College of Cardiology/American Heart Association. ACC/AHA lesion type A/B1 was compared with B2/C lesions.

Figure 5: Box plots of the differences between pre- and postprocedural serum C-reactive protein (CRP) levels in patients with femoral artery closure using the Duett Sealing Device® or the FemStop® device.

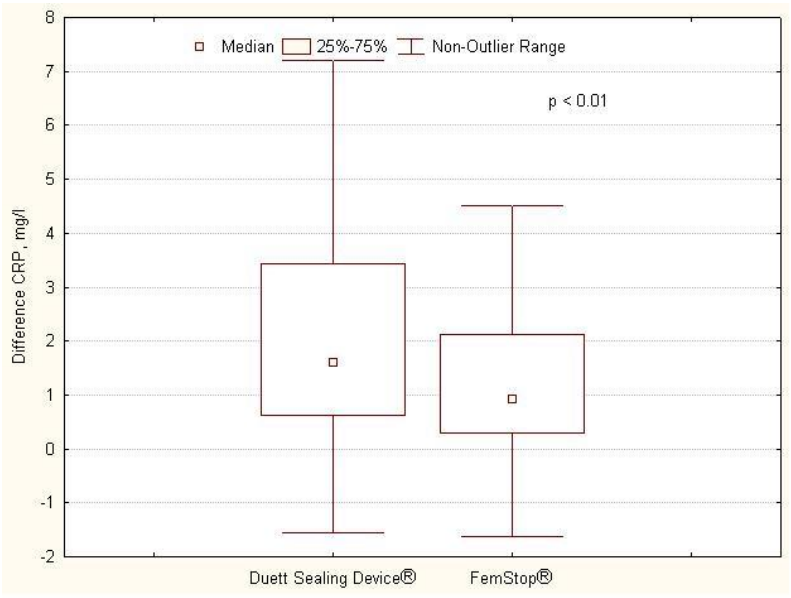


Figure 6: Box plots of the differences between pre- and postprocedural serum amyloid A (SAA) levels in patients with femoral artery closure using the Duett Sealing Device® or the FemStop® device.

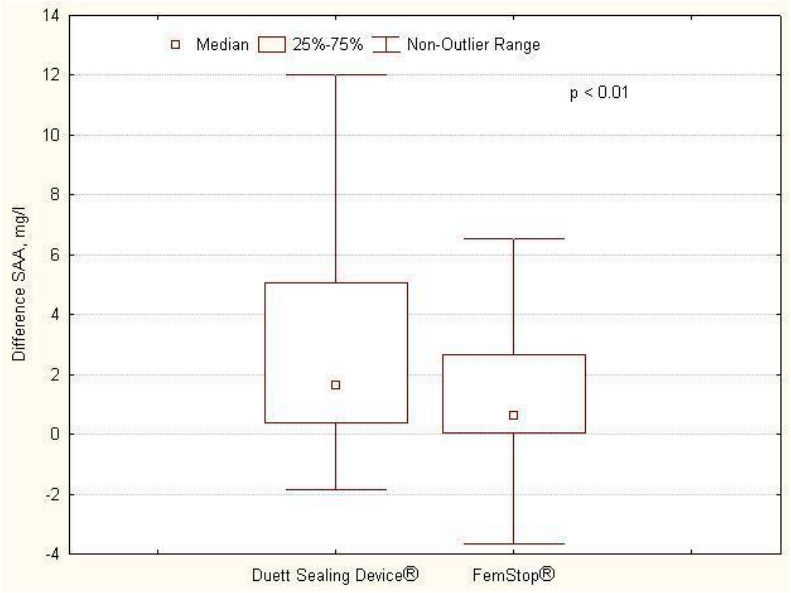


Figure 7: Box plots of plasma levels of C-reactive protein (CRP) before and 6, 24, 48 and 72 hours after percutaneous coronary intervention.

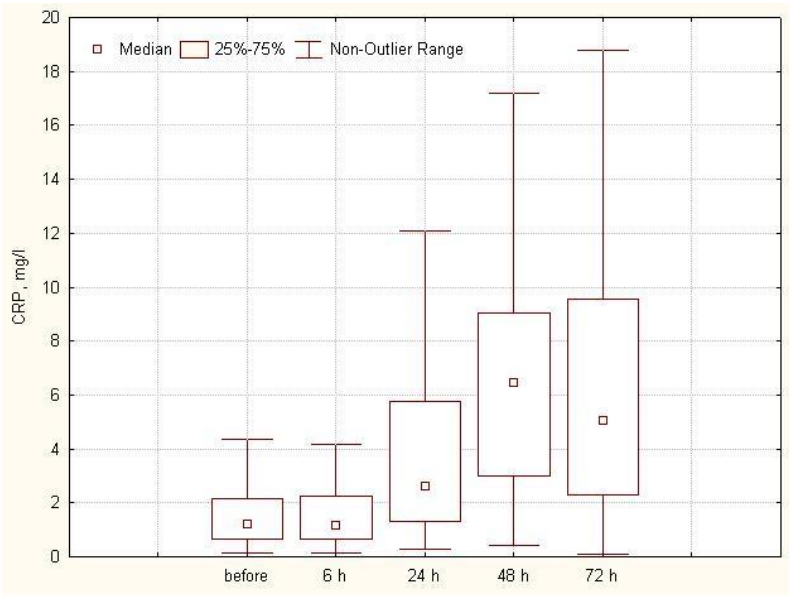


Figure 8: Box plots of plasma levels of Interleukin-6 (IL-6) before and 6, 24, 48 and 72 hours after percutaneous coronary intervention.

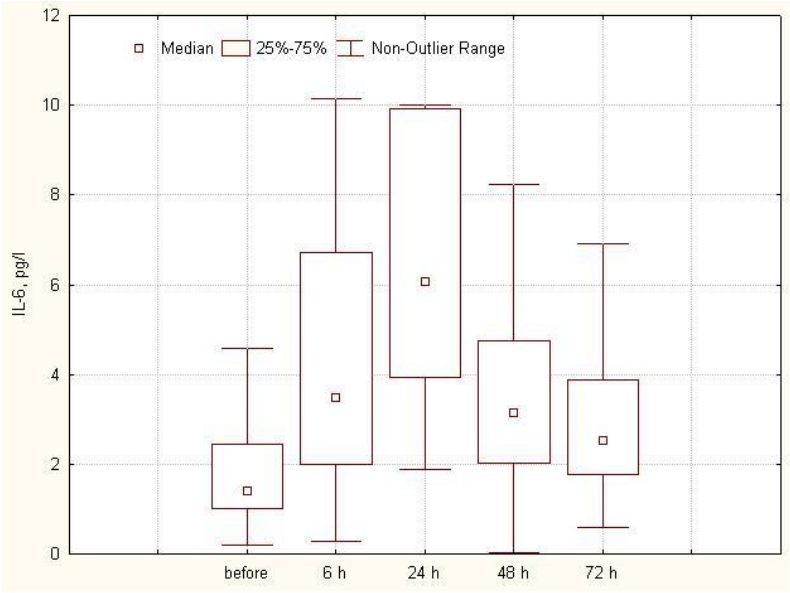


Figure 9: Histogram of the frequency distribution of individuals exposed to infectious pathogens expressed as number of seropositives.

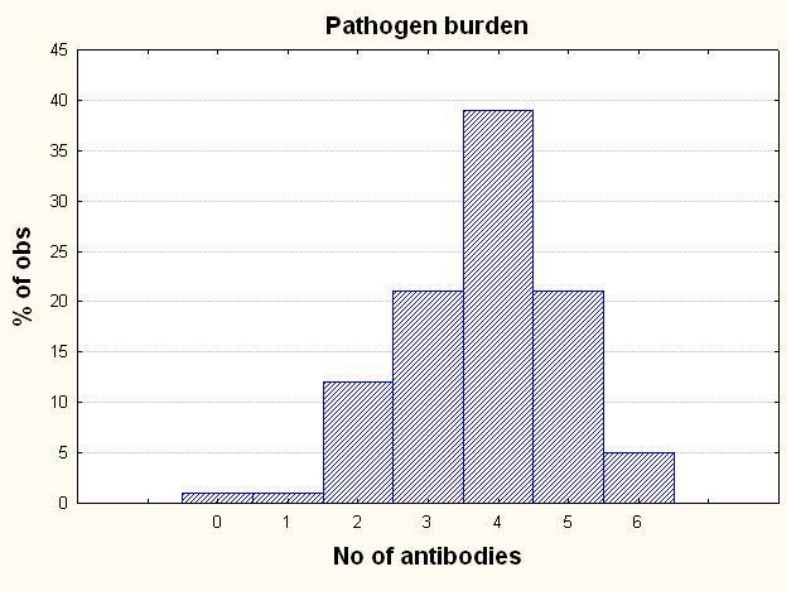


Figure 10: Median C-reactive protein (CRP, mg/l) area under the curve (AUC) and Interleukin-6 (IL-6, pg7l) AUC, in relation to to the number of seropositives per patient.

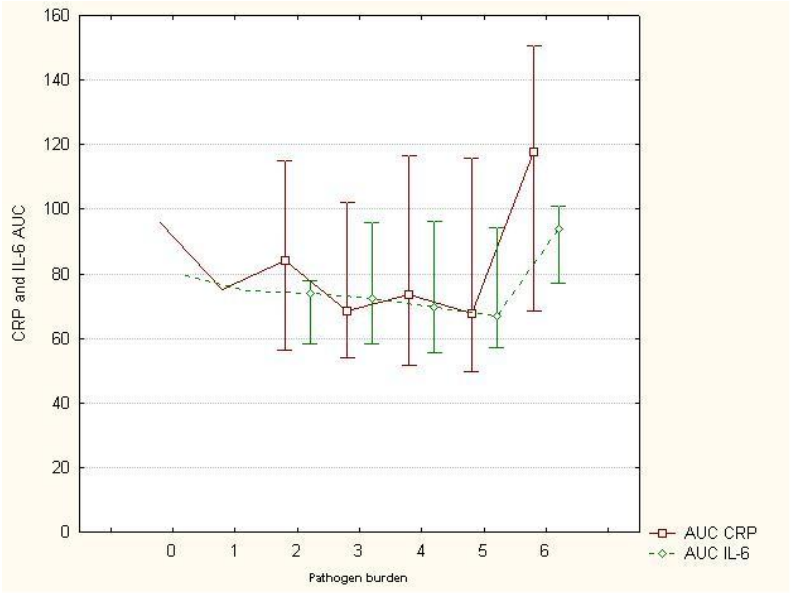
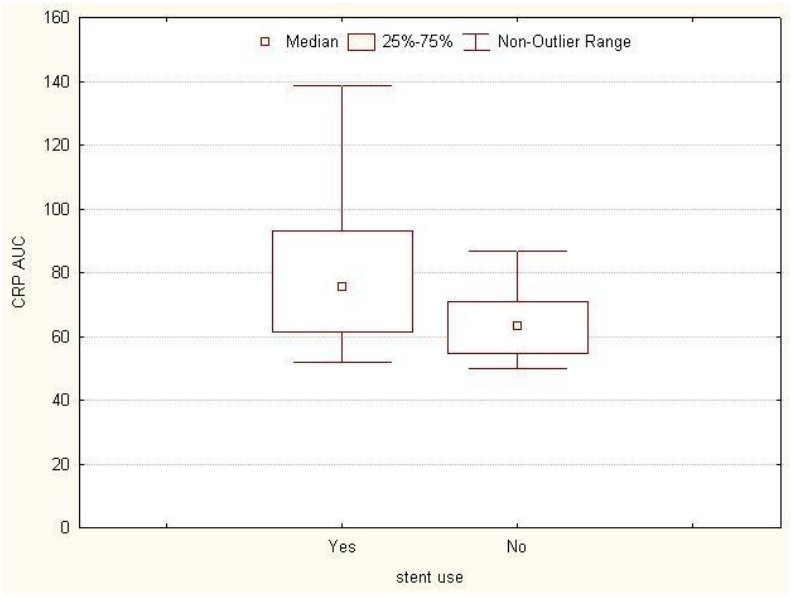


Figure 11. Box plots of C-reactive protein (CRP, mg/l) area under the curve (AUC) in patients with or without stentimplantation.



$p < 0.03$

Figure 12: Box plots of Interleukin-6 (IL-6, pg/l) area under the curve (AUC) in patients with or without stentimplantation

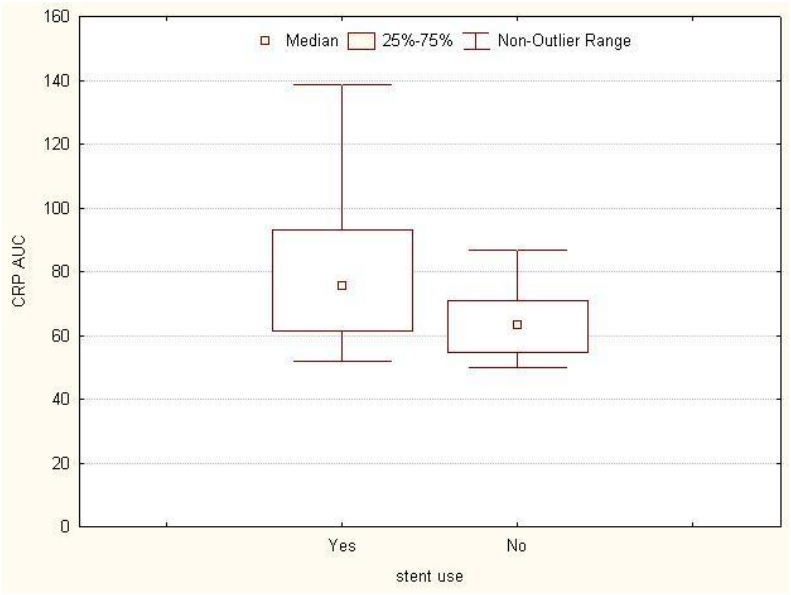


Figure 13: Box plots of serum C-reactive protein (CRP) concentrations in patients without or with death or non-fatal myocardial infarction.

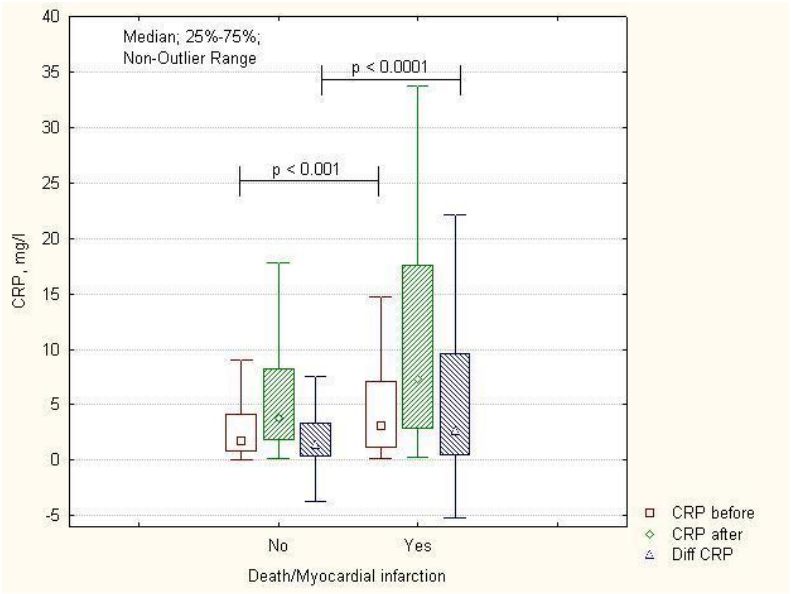


Figure 14: Box plots of serum troponin T concentrations before and after PCI in patients without or with death or myocardial infarction.

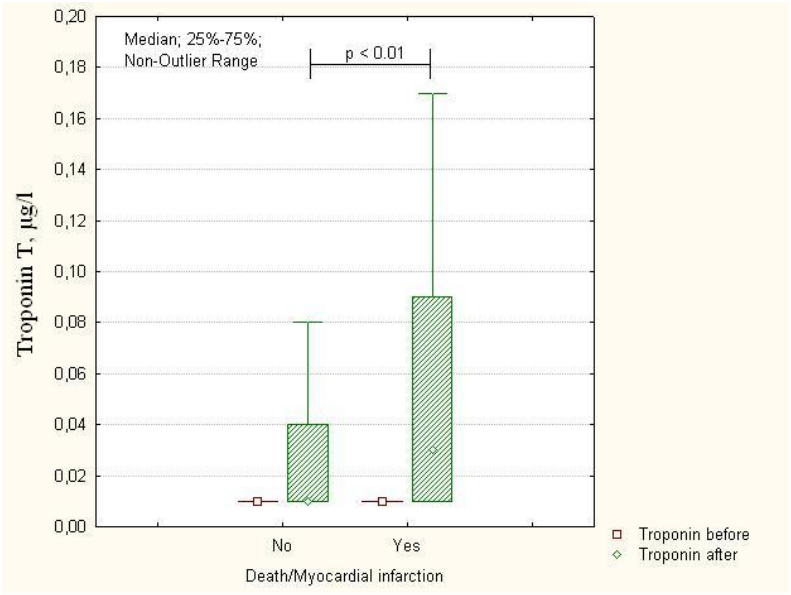


Figure 15: Box plots of C-reactive protein response (CRP) to percutaneous coronary intervention in patients without or with the need of revascularization.

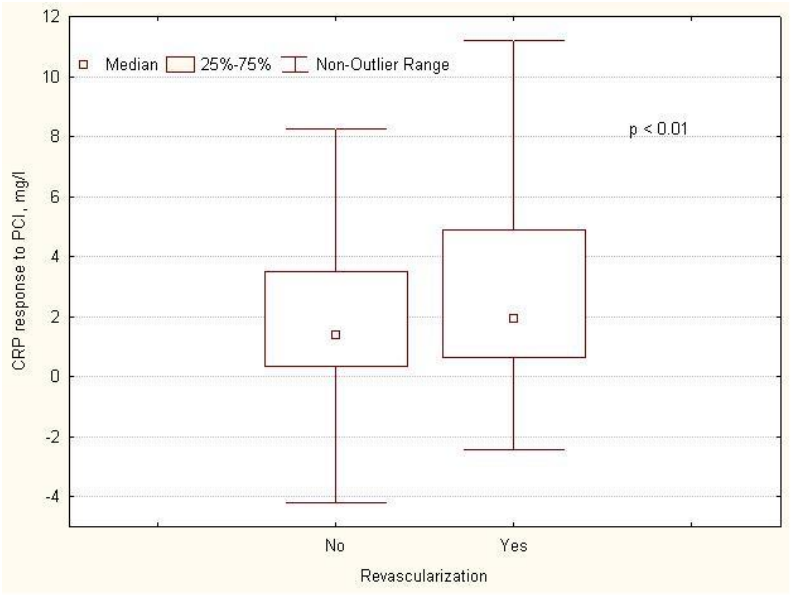


Table 6: Multivariate analysis of predictors of death or non-fatal myocardial infarction

Age	1.04 (1.02-1.06)		
Troponin T, μg/l	1	0.20 (0.03-1.25)	2.65 (1.02-6.83)
categories	[0.01-0.05]	[0.06-0.14]	[0.15-3.0]
CRP baseline, mg/l	1	1.07 (0.56-2.04)	1.79 (0.99-3.26)
tertiles	[0.1-1.1]	[1.1-3.1]	[3.1-119]
ΔCRP, mg/l	1	1.47 (0.77-2.82)	2.48 (1.42-4.33)
tertiles	[-37-0.7]	[0.7-2.6]	[2.6-85.9]

Values are risk ratios (95% confidence interval) and [range]. CRP, C-reactive protein.

Table 7: Multivariate analysis of predictors of need for coronary revascularization

Age	0.99 (0.98-1.01)		
Stent	0.71 (0.46-1.11)		
Troponin T, μg/l	1	1.48 (0.89-2.43)	1.35 (0.81-2.25)
categories	[0.01-0.05]	[0.06-0.14]	[0.15-3.0]
CRP baseline, mg/l	1	1.10 (0.72-1.68)	0.90 (0.57-1.40)
tertiles	[0.1-1.1]	[1.1-3.1]	[3.1-119]
ΔCRP, mg/l	1	1.75 (1.11-2.75)	2.15 (1.37-3.36)
tertiles	[-37-0.7]	[0.7-2.6]	[2.6-85.9]

Values are risk ratios (95% confidence interval) and [range]. CRP, C-reactive protein.