

BACKGROUND

- Cardiovascular disease (CVD) is the one of major cause of mortality and morbidity in the world.¹
- It is known that about 75% of CVD can be caused by conventional risk factors (CRF).²
- Among patients with coronary artery disease, 80-90% presented at least one CRF.³
- The recognition of trends in CRF profiles is important, especially as the current risk prediction models such as the Framingham risk score (FRS) are based on risk profiles from decades prior.

PURPOSE

- To determine if there are differences in conventional risk profile of patients admitted with acute coronary syndrome over time.

METHODS

4871 patients (pts) admitted consecutively in our coronary care unit with a diagnosis of acute coronary syndrome from January 2002 to October 2013

GROUP 1
2002-2005
(n=1245, 25.6%)

GROUP 2
2006 to 2009
(n=1562, 32%)

GROUP 3
2010 to 2013
(n=2064, 42.4%)

For each group we studied:

- the prevalence of conventional risk factors (CRF) including diabetes, hypertension, smoking and dyslipidaemia over time
- We compared findings according to gender and type of acute coronary syndrome.

RESULTS

Demographic and clinical characteristics of patients

	2002-2005	2006-2009	2010-2013	p
Age (years)	64±13	64±14	64±13	NS
Women (%)	26	26.9	22.6	0.006
BMI (Kg/m ²)	26.48±4.0	27.13±5.8	27.15±4.7	<0.001
Medical History				
Prior MI (%)	18.1	16.8	15.1	NS
Prior CABG (%)	3.4	3.8	8.0	<0.001
Prior stroke (%)	5.9	6.5	7.5	NS
Prior Statin Therapy (%)	20.5	30.4	39.4	<0.001
Prior ACEi/ARB Therapy (%)	25.3	29.6	42.9	<0.001
Clinical Presentation				
Renal dysfunction (%)	18.2	20.5	27.3	<0.001
Anaemia (%)	18.9%	22.3	23.8	0.018

Clinical Presentation

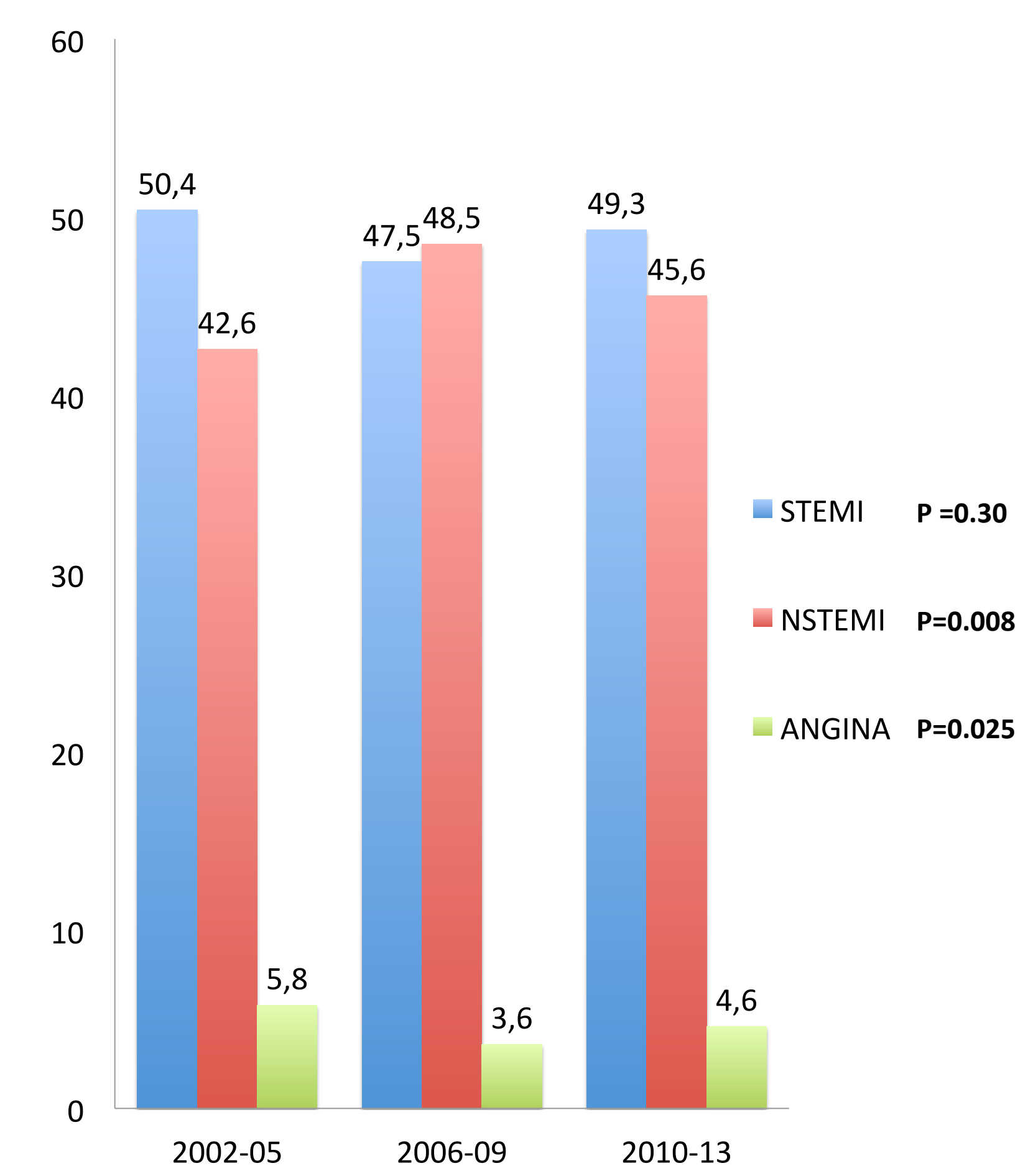


Fig 1 - Distribution of acute coronary syndromes by temporal Periods.

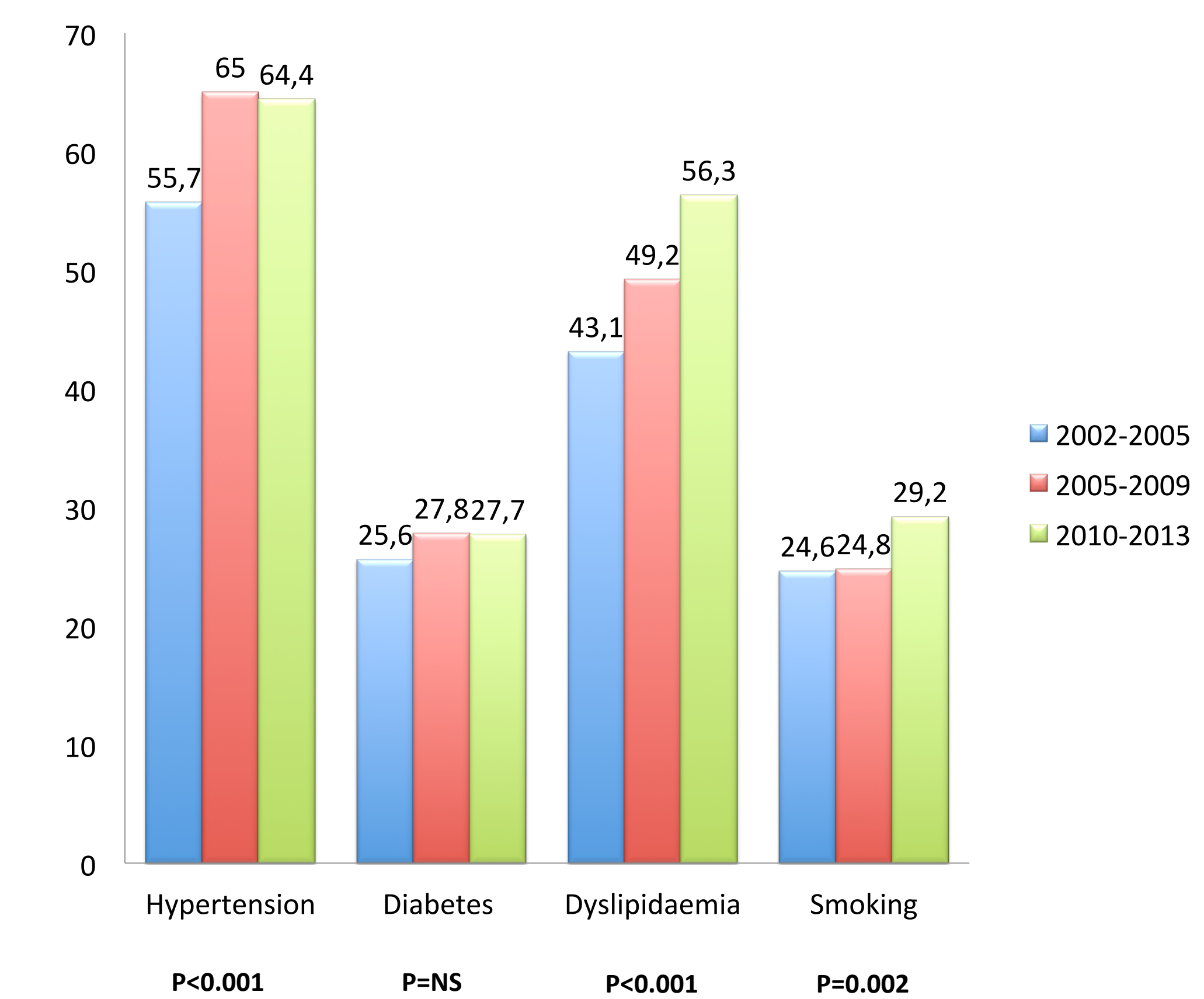


Fig 2 - Prevalence of conventional risk factors, over time.

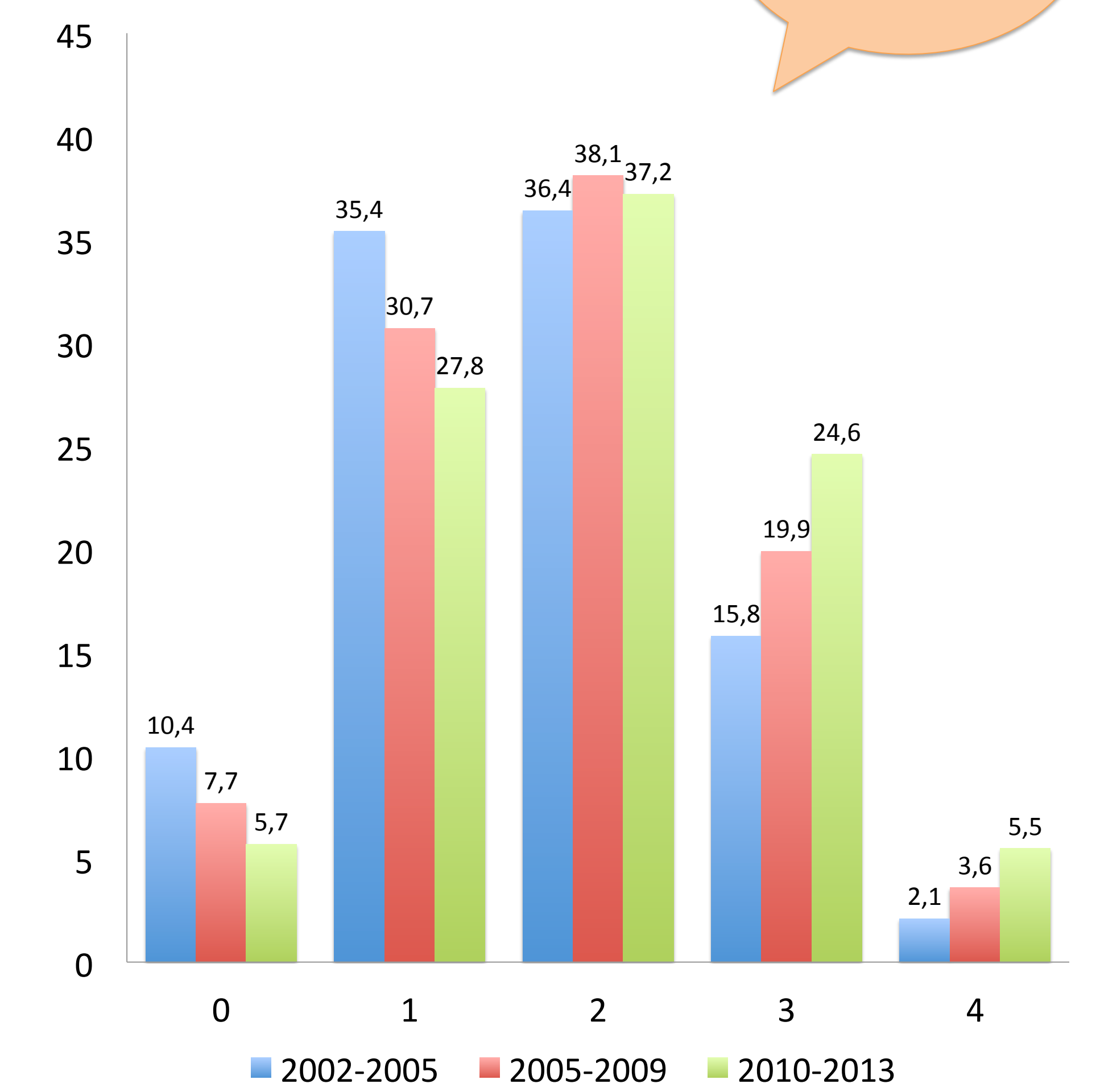


Fig 3 - Proportion of CRF over time, over time.

1 CRF in 92.8% of patients

Table 2 - Proportion of CRF over time, according to gender

Conventional risk factor	Sex	G1	G2	G3	p
Diabetes	♀	34.4%	37.4%	37.3%	NS
	♂	22.5%	24.3%	24.9%	NS
Hypertension	♀	69.3%	77.4%	78.6%	0.007
	♂	50.9%	60.4%	60.2%	<0.001
Dyslipidemia	♀	45.1%	48.6%	57.8%	0.001
	♂	57.6%	50.6%	44.1%	<0.001
Smoking	♀	4.9%	10.5%	7.5%	0.018
	♂	31.6%	32%	35.5%	0.007

Table 3 - Proportion of CRF over time, according to ACS

Conventional risk factor	ACS	G1	G2	G3	p
Diabetes	STEMI	20.1%	23%	22.9%	NS
	NSTEMI	32.4%	32.7%	32.7%	NS
Hypertension	STEMI	49.6%	59.6%	58.7%	0.001
	NSTEMI	61.9%	70.2%	69.4%	<0.001
Dyslipidemia	STEMI	37.2	45.3%	50.5%	0.001
	NSTEMI	47.7%	52.9%	60.7%	<0.001
Smoking	STEMI	24.6%	24.8%	29.2%	<0.001
	NSTEMI	18.6%	21.1%	22.1%	NS

CONCLUSION

- It was observed, at least one conventional risk factor in 92.8% of patients admitted with ACS. Most patients present two to three risk factors.
- The risk profile of patients presenting with acute coronary syndrome worsened over the years. The number of CRF per patient has been increasing over time.
- Dyslipidaemia and hypertension were the most prevalent cardiovascular risk factors in global, by gender and by acute coronary syndrome.
- Smoking habit has been increasing over time, mainly by men and is more prevalent in STEMI patients.
- It is crucial to discuss more strictness strategies for primary prevention.

LIMITATIONS OF STUDY

- Single Centre study.
- Drawbacks inherent to retrospective and observational studies, such as unadjusted bias.