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IDM chez la femme : pourquoi l'étude WAMIF ?

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Disclosure Statement of Financial Interest

I currently have, or have had over the last two years, an affiliation or financial interests or interests of any order with a company or I receive compensation or fees or research grants with a commercial company :

Speaker's name : Stéphane, Manzo-Silberman, Paris

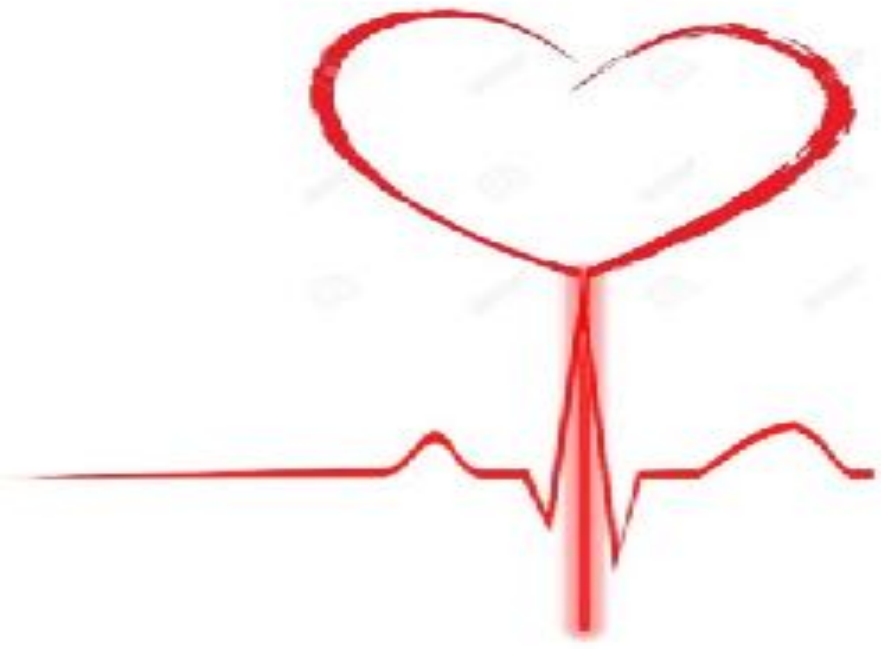
Je déclare les liens d'intérêt potentiel suivants :

Bourses de Recherche : Abiomed

Consultant : Abbott, AstraZeneca, Biotronik, Novartis

Subvention : Abbott, AstraZeneca, Bayer, Boston Scientific France, Daiichi Sankyo, Novartis, Pfizer

Intervention'Elles



GACI



Prospective study in young
Women presenting
Acute
Myocardial
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**ETUDE PROSPECTIVE de l'INFARCTUS DE LA FEMME JEUNE : ANALYSE DESCRIPTIVE
CLINIQUE, MORPHOLOGIQUE ET BIOLOGIQUE:**

ETUDE WAMIF

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Rationnel de l'étude

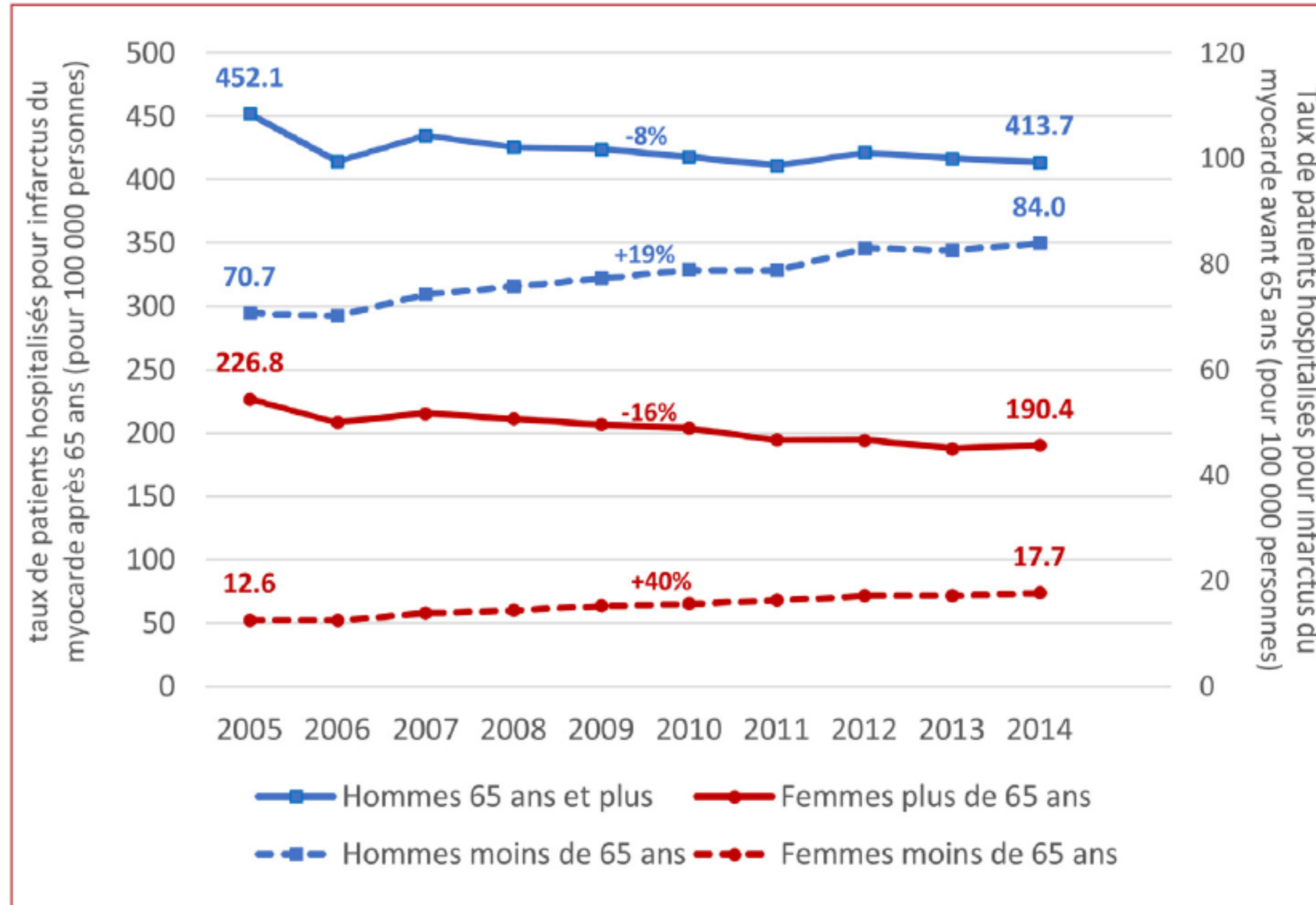


- 1^{ère} cause de mortalité chez la femme: cardiovasculaire
- En France, maladie coronaire responsable de 11.9 décès/100 000 femmes de 35 à 74 ans/ an
- Pronostic plus sombre: mortalité 30 jours x 3: **9.8% vs 2.6% chez les hommes vs 23,7 % à 9,8 % chez les femmes**
- Incidence croissante 11.8% → 25.5%
- 11% IDM admis = femmes < 50 ans
- Augmentation des facteurs de risques « traditionnels » + Rôle d'autres facteurs de risque: inflammation, modifications hormonales?
- **Physiopathologie et facteurs de risque spécifiques chez la femme jeune ?**

Rationnel de l'étude



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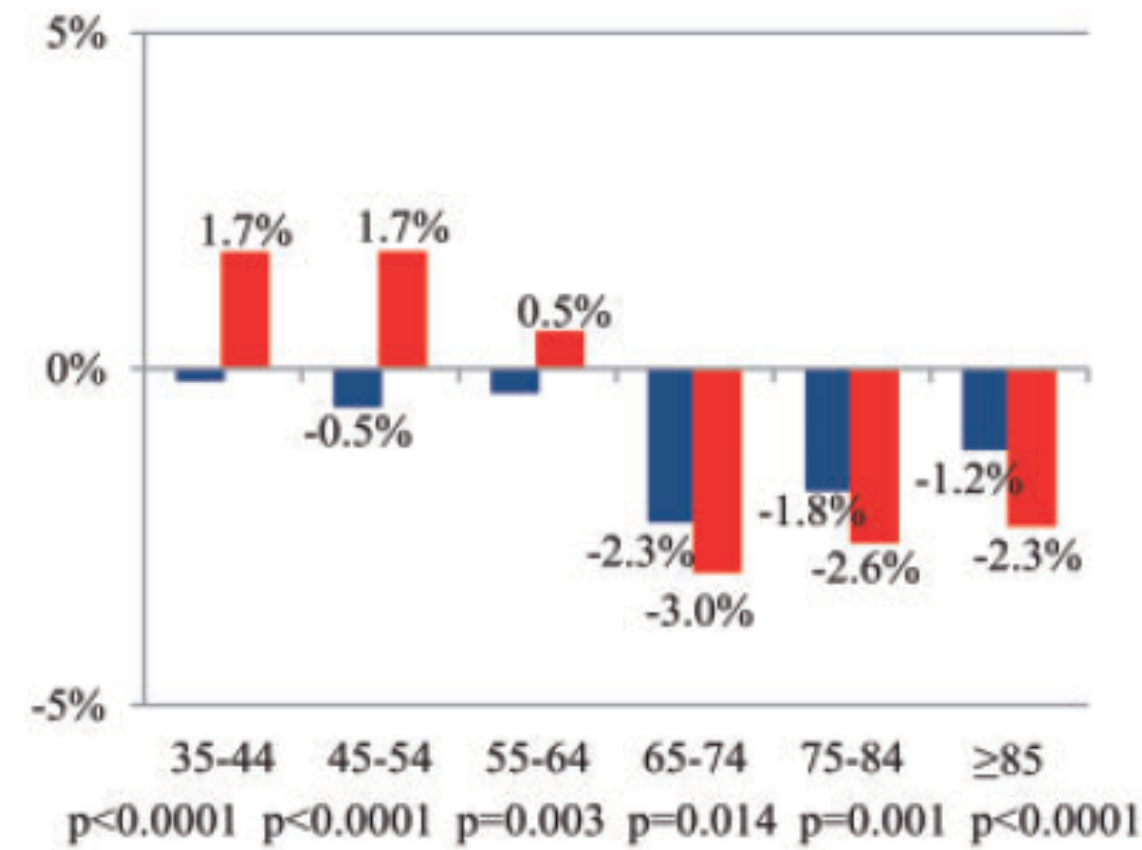


Rationnel de l'étude

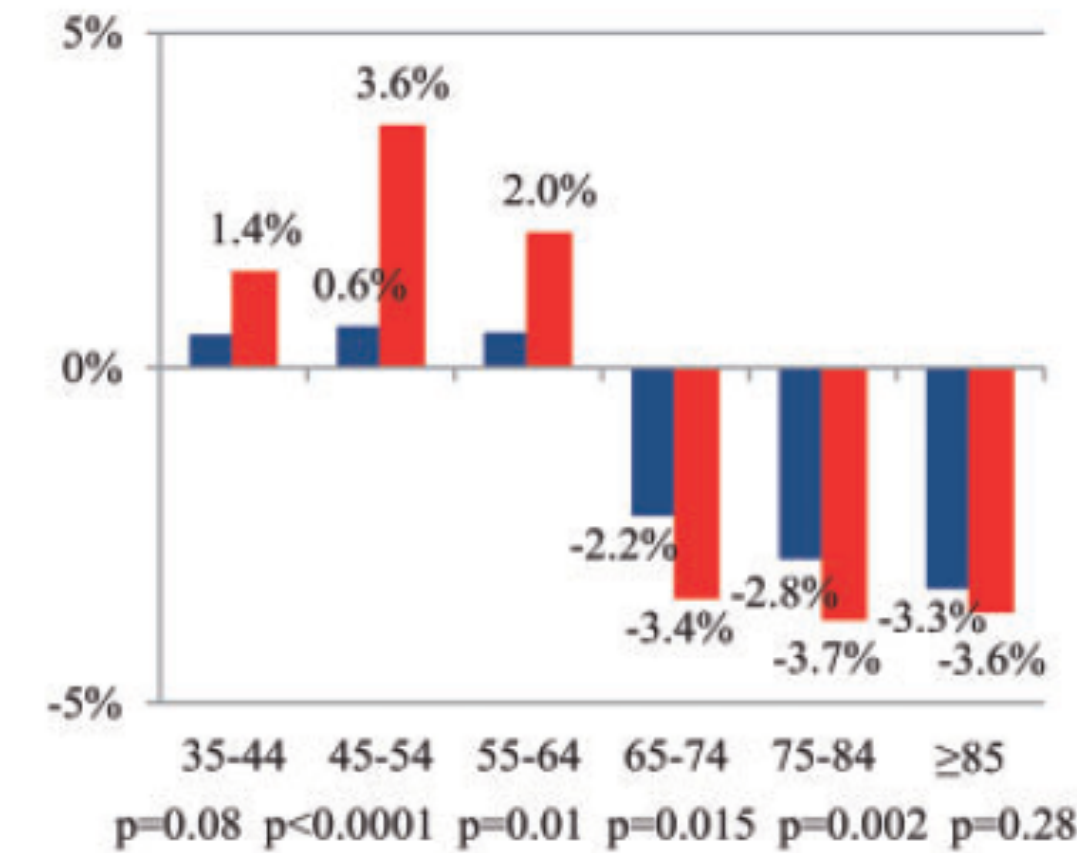


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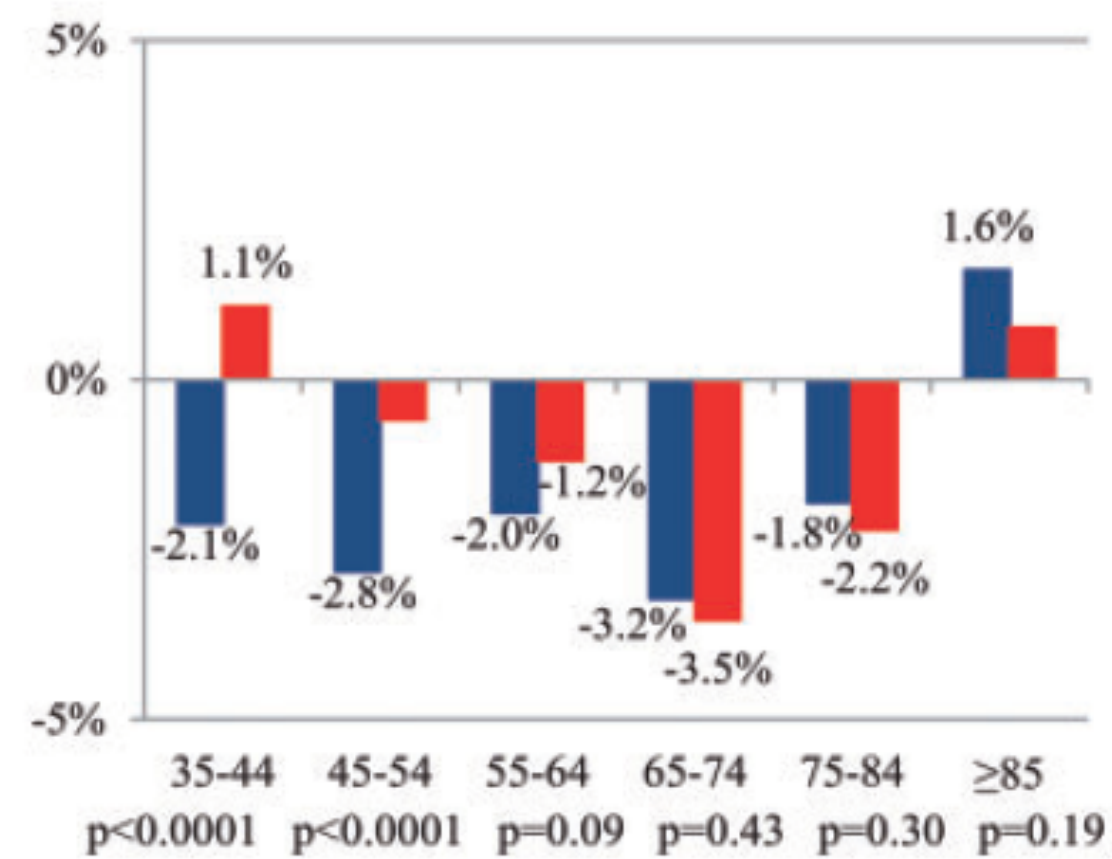
A ACS



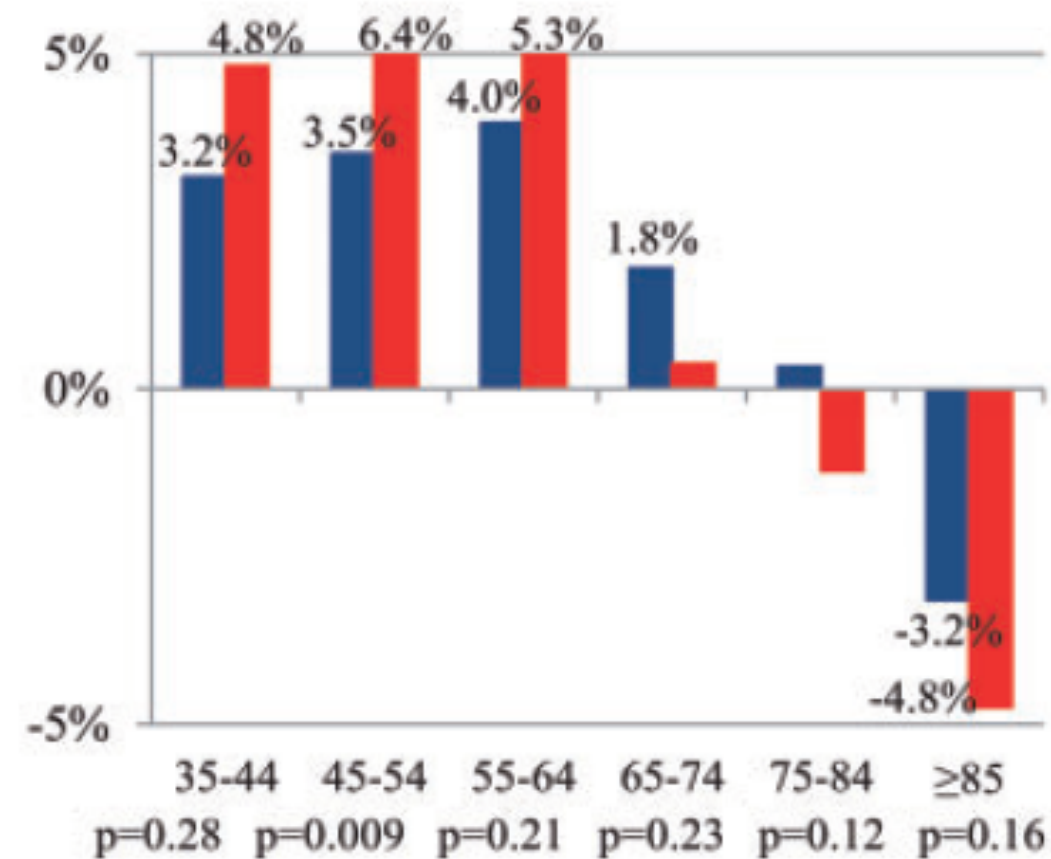
B STEMI



C UA



D NSTEMI



■ Men ■ Women

Facteurs de risque: spécifiques



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Table. Female Sex and Cardiovascular Disease Risk Factors

Female-Specific CVD Risk Factors	Female-Predominant CVD Risk Factors
Adverse pregnancy outcomes	Autoimmune inflammatory diseases
Pregnancy-related hypertension	Rheumatoid arthritis
Gestational hypertension	Systemic lupus erythematosus
Preeclampsia	Scleroderma
Eclampsia	
Gestational diabetes mellitus	
Preterm delivery	
Low birth weight for gestational age	
Polycystic ovarian syndrome	Breast cancer
Functional hypothalamic amenorrhea	
Reproductive hormones	
Oral contraceptives	
Hormone replacement	

CVD indicates cardiovascular disease.

Modified from Gulati.¹⁸ Copyright © 2017, American Heart Association, Inc.

Rationnel des explorations morphologiques



- Imagerie endocoronaire IDM à coronaires « saines »: OCT, IVUS
 - Rupture, érosion
 - Dissection, hématome intramural
- IRM: nécrose, Dg différentiel
- AngioIRM: fibrodysplasie
- PETScan: Artérite inflammatoire

Virmani R et al. Arterioscler Thromb Vasc Biol 2000

Reynolds HR et al. Circulation 2012

Motreff P et al. Cardiology 2010

Kubo T et al. J Am Coll Cardiol 2007

Leisy JP et al. Radiology 2000

SCAD



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Table 3. Prevalence of spontaneous coronary artery dissection among acute coronary syndrome cases at our institution during the 2012-2014 period.

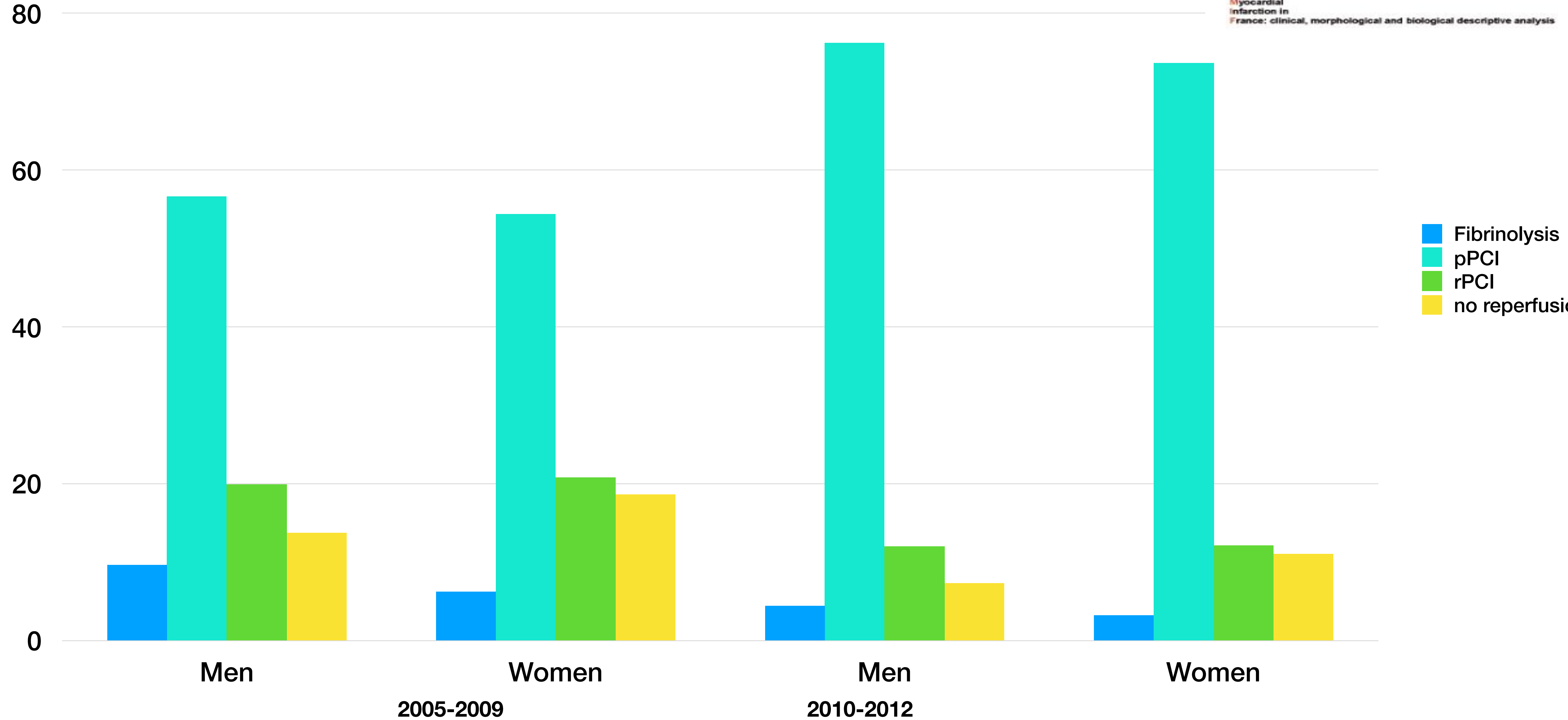
	ACS	SCAD	Ratio (%) (SCAD/ACS)	NSNDS
All comers	3,224	36	1.1	90
Women	969	36	3.7	27
Women <60 years	234	27	11.5	9
Women <50 years	111	17	15.3	7
Women <60 ≤2 CRF	132	26	19.7	5
Women <60 non-smoker	64	18	28.2	4
Women <60 ≤1 CRF	56	20	35.7	3

ACS: acute coronary syndrome; CRF: cardiovascular risk factors;
NSNDS: number of patients admitted for acute coronary syndrome needed to diagnose one case of spontaneous coronary artery dissection;
SCAD: spontaneous coronary artery dissection

Femmes jeunes: Reperfusion



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Sex differences in long-term mortality among acute myocardial infarction patients: Results from the ISAR-RISK and ART studies



Romy Ubrich¹, Petra Barthel¹, Bernhard Haller², Katerina Hnatkova³, Katharina Maria Huster¹, Alexander Steger¹, Alexander Müller¹, Marek Malik^{3,4,5}, Georg Schmidt^{1,4,6} –

Prospective study in young Women presenting Acute Myocardial Infarction in France: clinical, morphological and biological descriptive analysis

Table 1. Patient characteristics in the complete cohort (n = 3,840) at baseline hospitalization.

	Females n = 994	Males n = 2846	P
Clinical data			
Age (years), mean (SD)	68.7 (11.9)	61.0 (12.2)	<0.001
Hypertension, n (%)	745 (74.9)	1853 (65.1)	<0.001
Diabetes mellitus, n (%)	255 (25.7)	549 (19.3)	<0.001
Smokers, n (%)	272 (27.4)	1542 (54.2)	<0.001
Creatinine (mg/dl), mean (SD)	1.2 (0.5)	1.3 (0.2)	<0.001
Previous AMI, n (%)	102 (10.3)	386 (13.6)	0.008
Non-SR, n (%)	79 (7.9)	166 (5.8)	0.023
CK max (U/l), mean (SD)	1526 (1583)	2017 (2385)	<0.001
LVEF (%), mean (SD)	52.6 (13.4)	52.0 (13.0)	0.177
Coronary angiography, n (%)	986 (99.2)	2836 (99.6)	0.125
Non-obstructive CAD, n (%)	52 (5.2)	69 (2.4)	<0.001
One-vessel CAD, n (%)	367 (36.9)	924 (32.5)	0.052
Two-vessel CAD, n (%)	258 (26.0)	790 (27.8)	0.291
Three-vessel CAD, n (%)	327 (32.9)	1063 (37.4)	0.013
Therapy			
PCI, n (%)	852 (85.7)	2589 (91.0)	<0.001
CABG, n (%)	28 (2.8)	84 (3.0)	0.914
Thrombolysis, n (%)	24 (2.4)	60 (2.1)	0.658
Conservative, n (%)	90 (9.1)	113 (4.0)	<0.001
ASS, n (%)	964 (97.0)	2759 (96.9)	1.000
Betablockers, n (%)	921 (92.7)	2609 (91.7)	0.362
ACE inhibitors, n (%)	880 (88.5)	2550 (89.6)	0.379
Statins, n (%)	829 (83.4)	2414 (81.0)	0.311
Diuretics, n (%)	472 (47.5)	1195 (42.0)	0.003
Mortality			
5-year all-cause, n (%)	175 (17.6)	337 (11.8)	<0.0001

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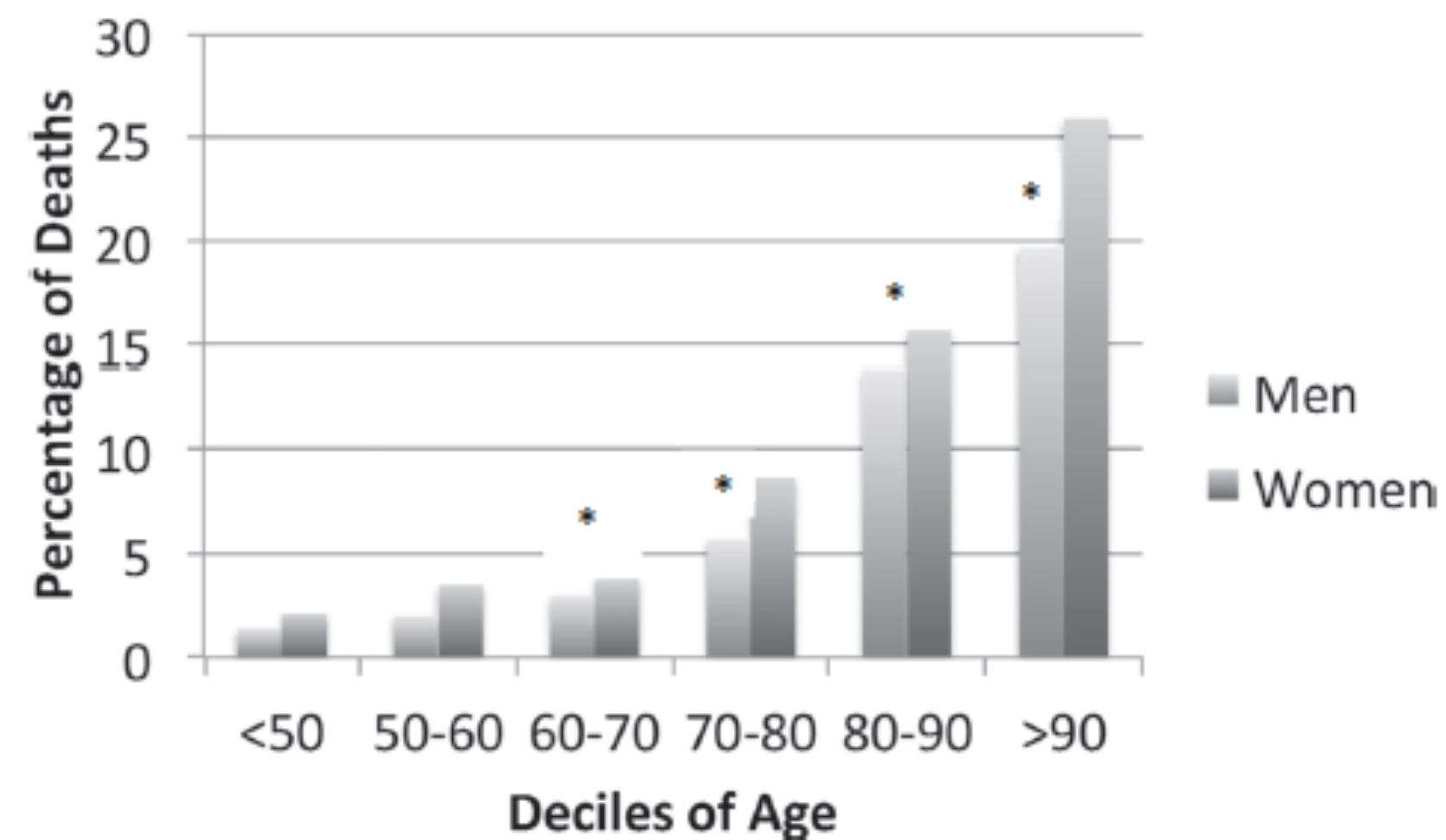
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Mortalité hospitalière



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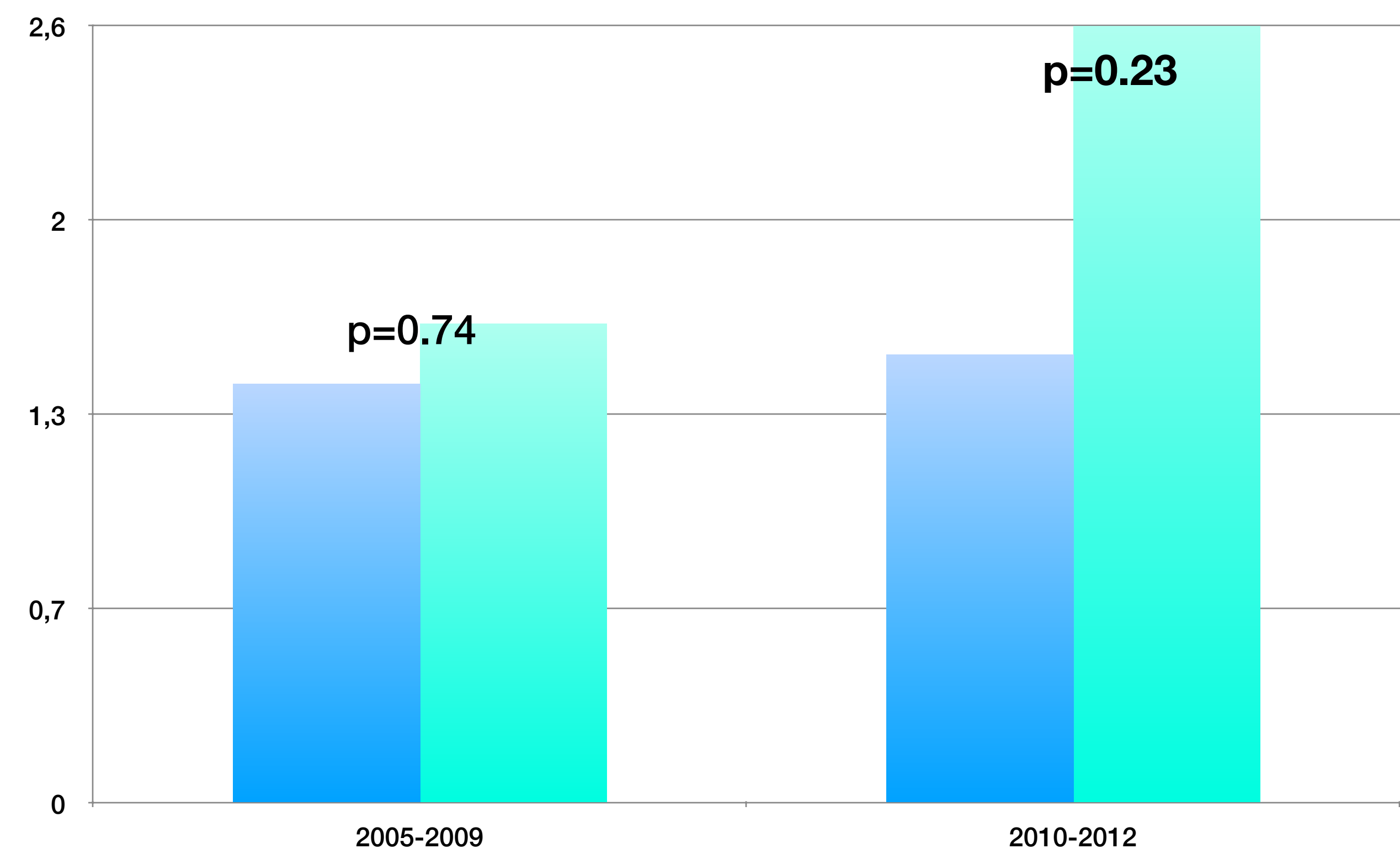
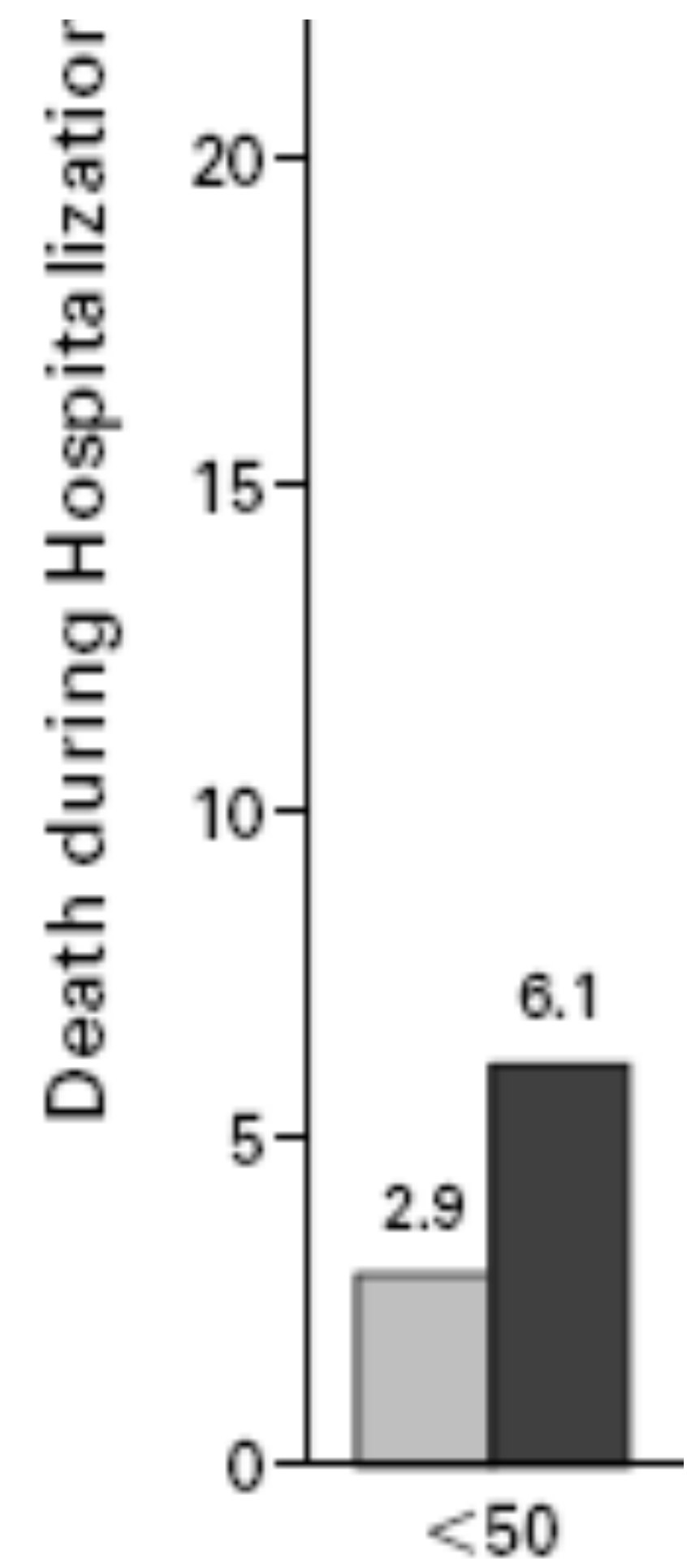
	<50	50-59	60-69	70-79	80-89	>90
Female (n)	383	463	589	937	1024	174
Male (n)	2423	2948	3110	1921	1860	84
OR	ref	1.44	2.11	4.59	11.24	20.35
IC		0.99- 2.12	1.47- 3.04	3.27- 6.45	8.07- 15.64	13.29- 31.16
P value		0.06	<0.001	<0.001	<0.001	<0.001

Fig. 2 In-hospital mortality rate according to age in deciles. Univariate odds ratio and interquartile range for in-hospital mortality.

Femmes jeunes : STEMI mortalité hospitalière



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Men
Women

Objectif principal



Analyse exhaustive et systématique l'ensemble des données cliniques et biologiques et des résultats des explorations morphologiques réalisées lors de la prise en charge de ces patientes admises pour IDM, de moins de 50 ans.

Pronostic à court terme (intra-hospitalier), et moyen terme (à 12 mois)

Aucun acte supplémentaire invasif à visée de recherche sans bénéfice direct pour la prise en charge des patientes ne sera réalisé.

Objectifs secondaires



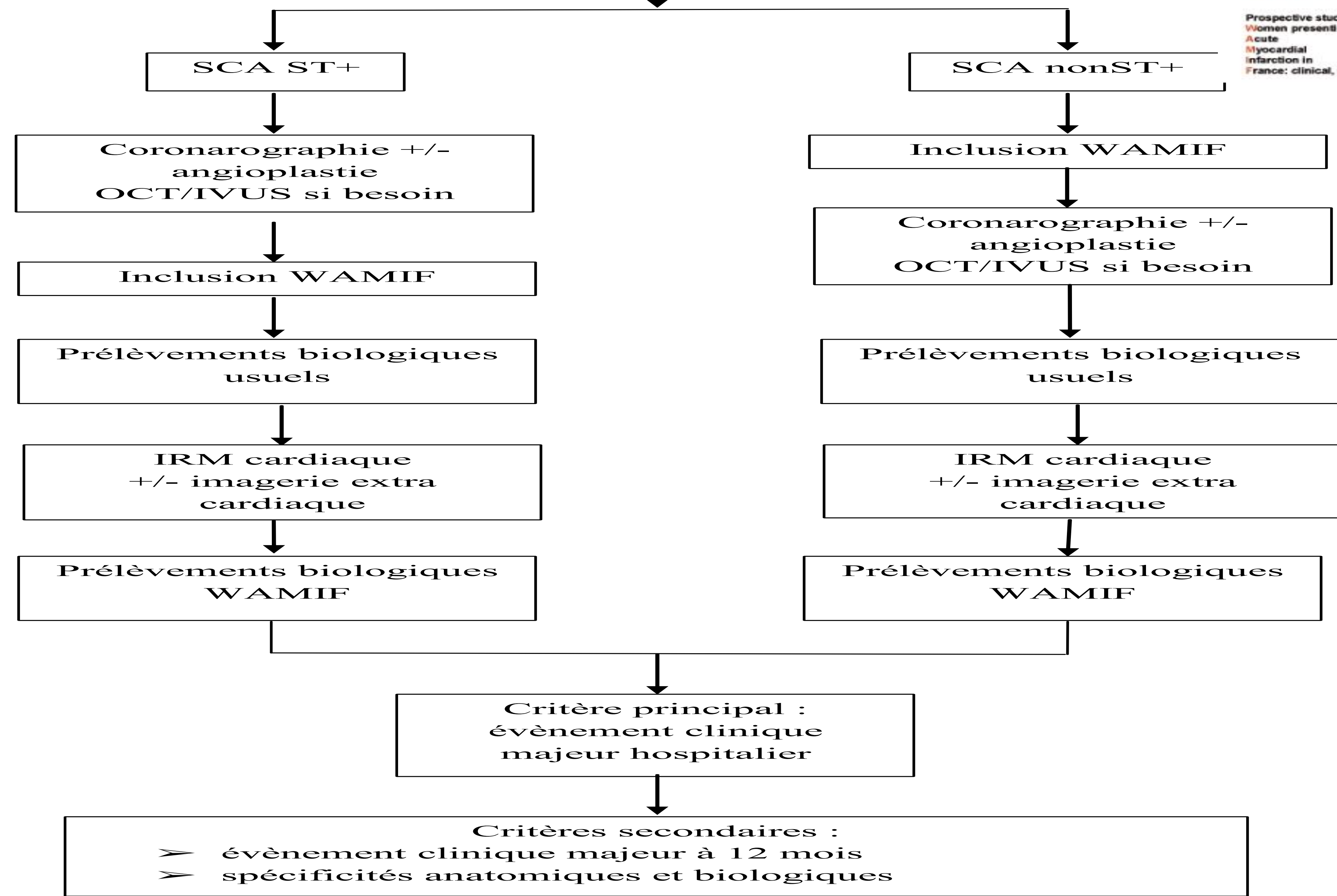
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- spécificités anatomiques des lésions
- fréquence des formes rares : dissections coronaires spontanées, embolies coronaires, spasmes coronaires,
- prévalence précise des facteurs de risque cardiovasculaire classiques dans cette population
- prévalence de pathologies liées à l'inflammation ou la thrombophilie,
- influence des paramètres hormonaux,
- extension extracardiaque de la pathologie,
- prévalence des maladies systémiques dans cette population,
- pronostic hospitalier

SCA
Femmes
]18-50] ans



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Critère principal :
événement clinique
majeur hospitalier

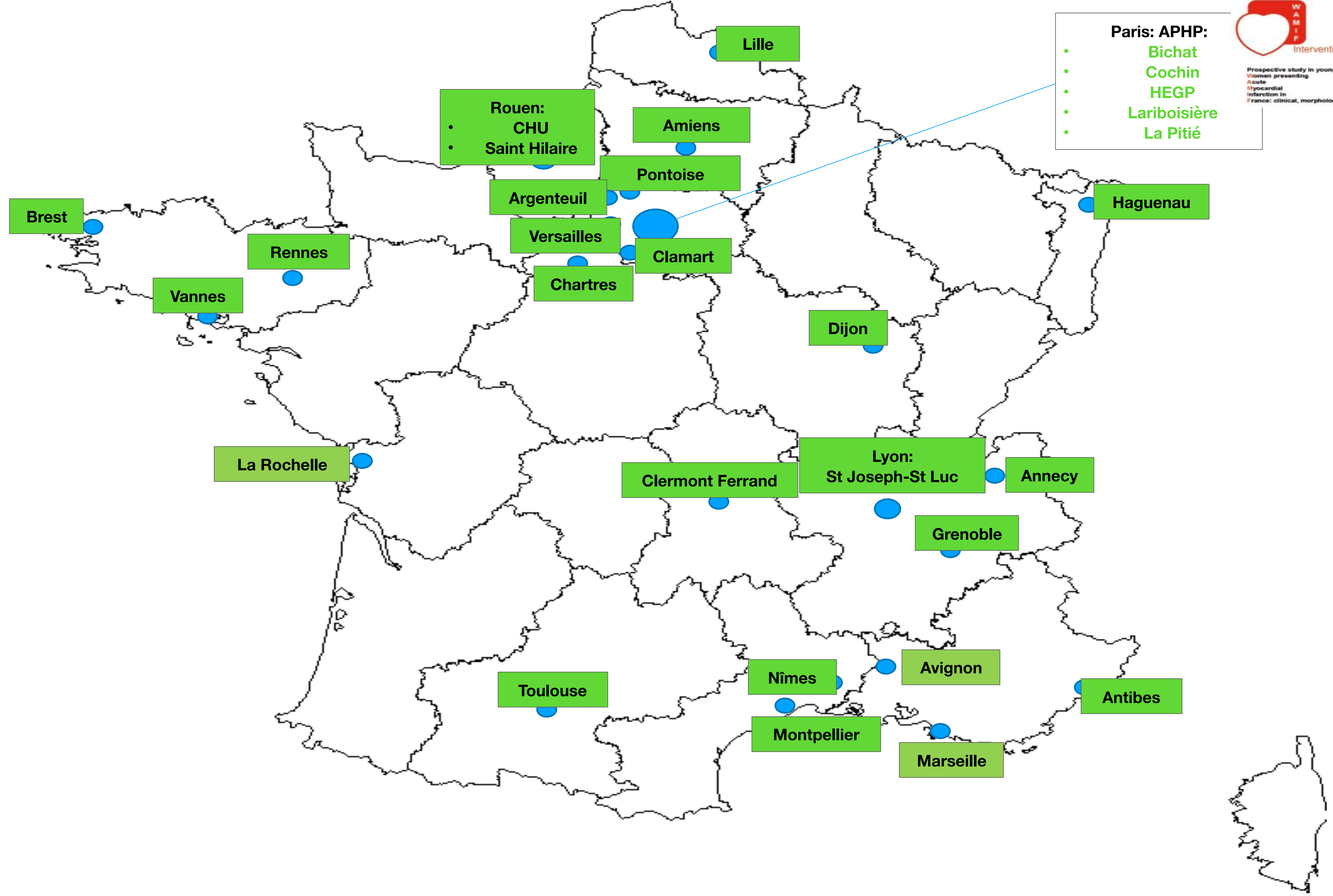
Critères secondaires :
➤ événement clinique majeur à 12 mois
➤ spécificités anatomiques et biologiques



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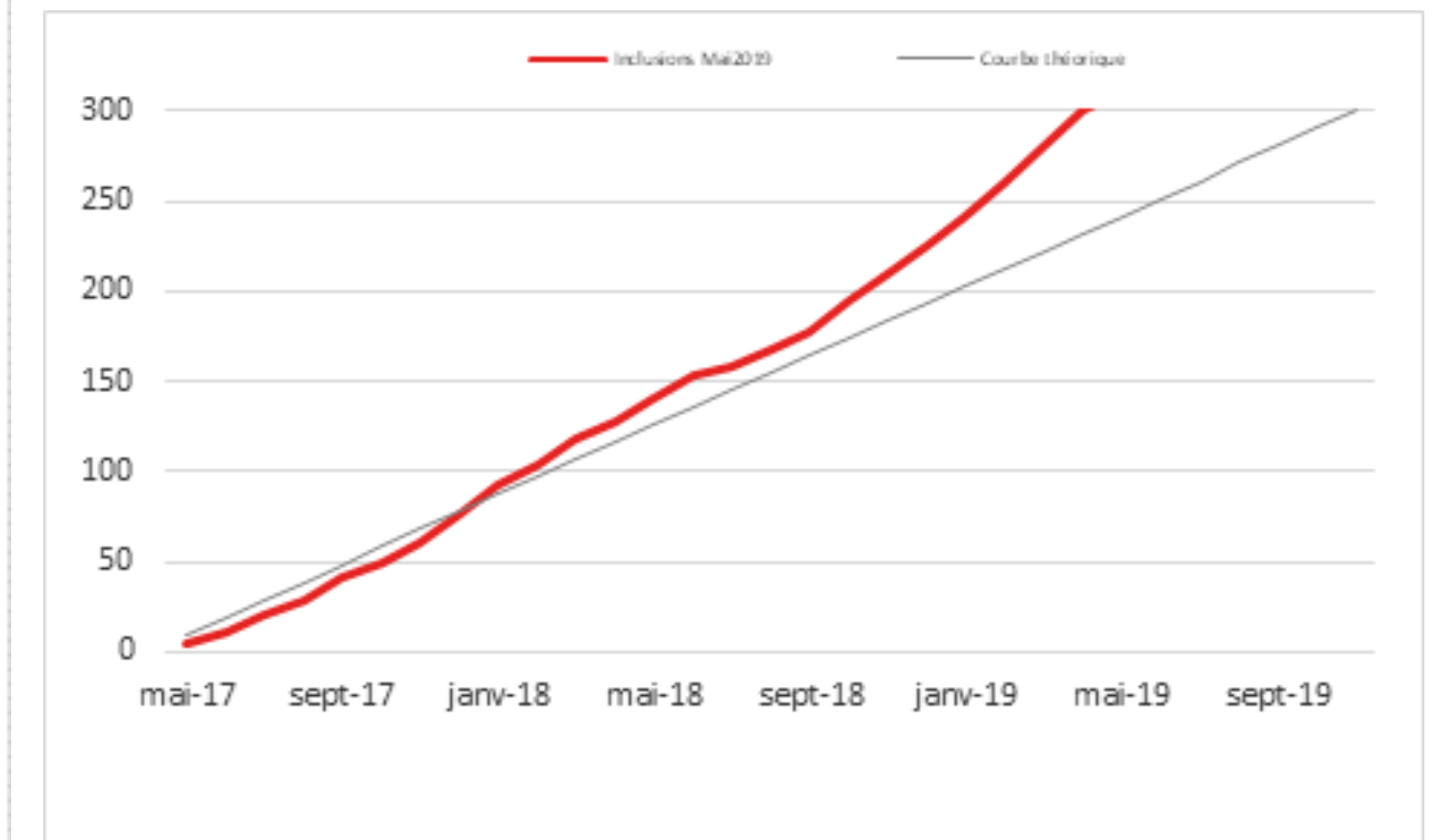
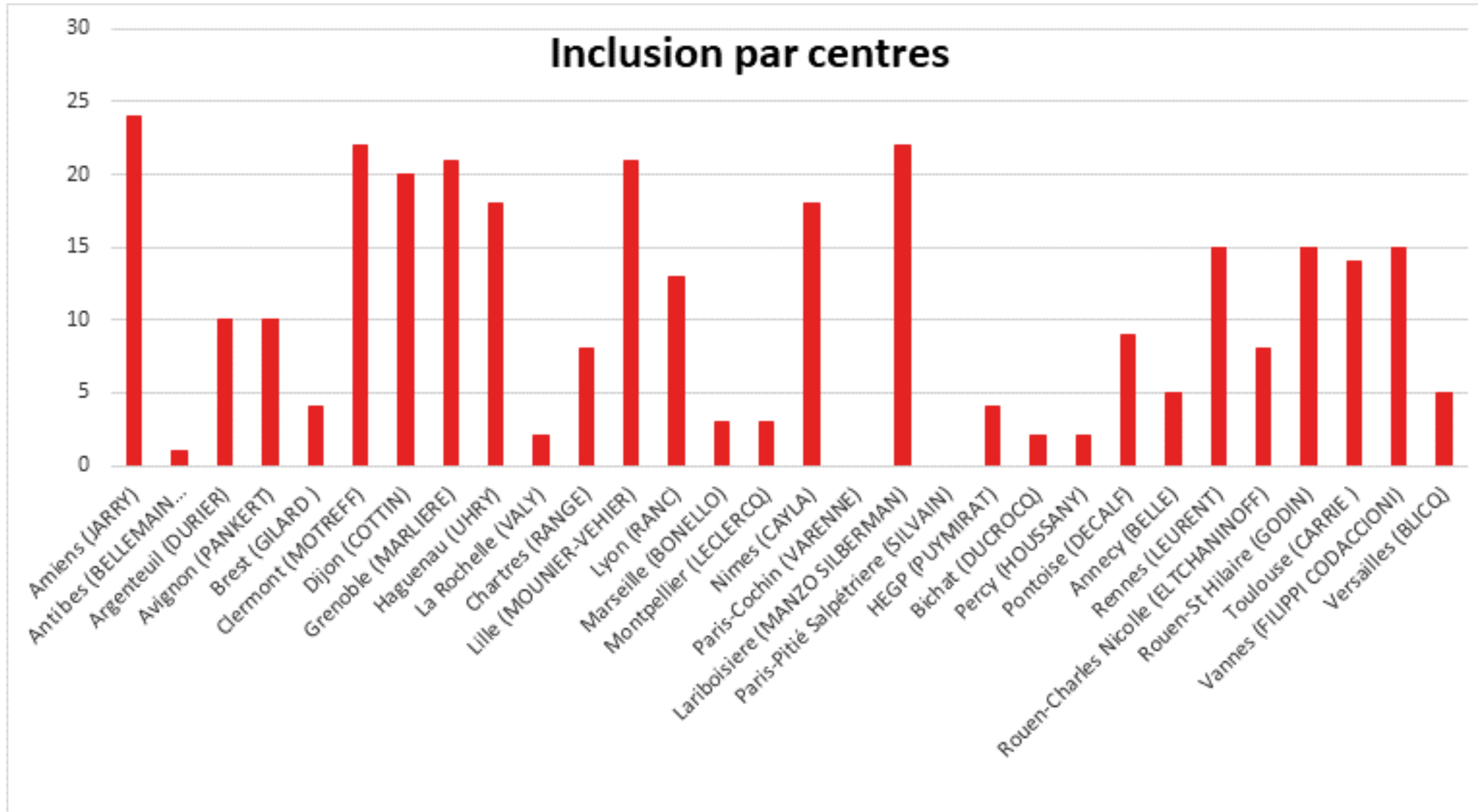
- Paris: APHP:
- Bichat
 - Cochin
 - HEGP
 - Lariboisière
 - La Pitié



Inclusion par centre



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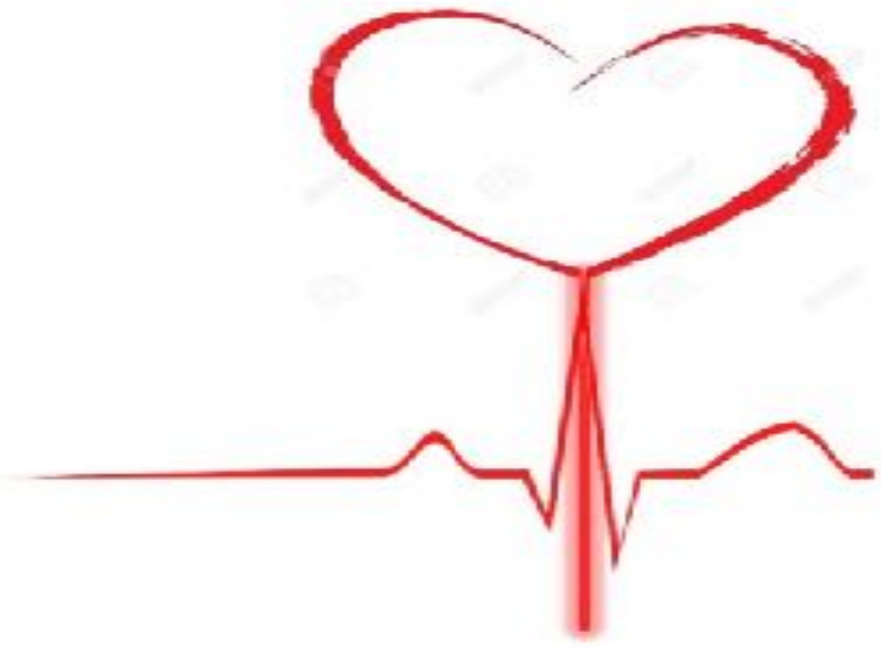
Overview



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- **316 patientes incluses eCRF**
- Age min: 23 ans
 - 12 patientes < 31 ans
 - 82 patientes 31-41 ans
- **MACE hospitalier:**
 - 0 décès
 - 3 AVC
 - 3 récurrences IDM
 - 1 saignement

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ETUDE WAMIF

Fin des inclusions!