

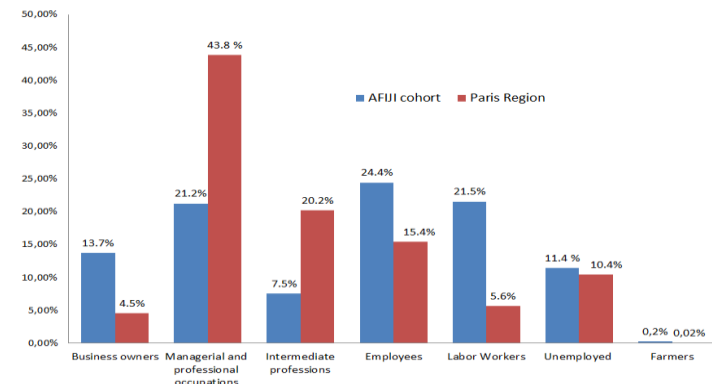
**Background:** Social and professional background is associated with the incidence and severity of coronary artery disease.

**Purpose:** To assess the natural evolution of premature coronary artery disease according to the social and professional status.

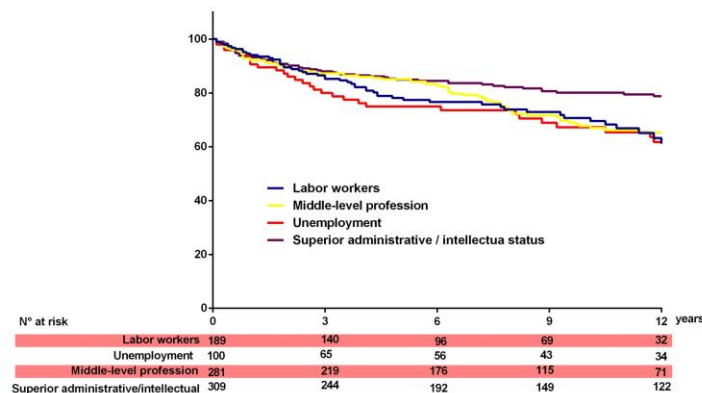
**Methods:** The multicenter prospective AFIJI (Appraisal of risk Factors in young Ischemic patients Justifying aggressive Intervention) registry was started in January 1996 enrolling all consecutive patients presenting with angiographically established CAD before the age 45. The last follow-up was obtained in January 2017. Patient's socio-professional status was defined according to the Institut National de la Statistique et des Etudes Economique (INSEE) as unemployed, labor worker, middle-level profession and superior administrative or intellectual position. The primary objective was to evaluate the rate of recurrent major adverse cardiovascular events (MACE) defined as a composite of all cause death, MI, ischemic stroke and revascularization, according to the above-mentioned patient's status.

**Results:** 880 patients were enrolled and followed up for a median time of 9.6 years. Patients were mainly males (88%), active smokers (77%) aged 41 (36-43) and presented initially with an acute MI (79%). Unemployed and labor workers represented respectively 11.4% (n=100) and 21.5% of patients (n=189), while patients with a middle-level profession were largely represented (n=281, 31.9%) alike those with a superior administrative or intellectual position (n=309, 35.1%). One out of three patients (n=263, 29.9%) suffered a total of 398 MACEs. MACE were significantly more frequent among labor worker patients (n=88/189, 44.4%) and unemployed patients (n=56/100 56.0%) than in middle-level profession (n=128/281, 42.9%) and superior administrative/intellectual position (n=126/309, 31.6%) (p<0.05, for trend). Unemployed patients were significantly at higher risk for the first ischemic recurrence after adjustment for baseline risk factors (adjHR 1.55, 95% CI (1.05 – 2.43) p=0.04) (figure 2).

**Figure 1: Socio-professional class in the AFIJI cohort and in Paris Region**



**Figure 2: Kaplan-Meier analysis of survival without ischemic recurrences**



**Table 1: Ischemic recurrences in each socio-professional class**

	Upper class n=309	Middle class n=281	Labor Worker n=189	Unemployed patients n=100
<b>Median follow-up time (y)</b>	10,95 IQ(5.4 - 17.1)	9,3 IQ(5.3 - 14.7)	9,3 IQ(4.4 - 12.4)	10,3 IQ(4.4 - 16.4)
<b>First ischemic recurrence</b>	<b>84 (27.2)</b>	<b>79 (28.1)</b>	<b>65 (34.4)</b>	<b>34 (34.0)</b>
STEMI	16 (5.2)	14 (5.0)	15 (7.9)	2 (2.0)
NSTEMI	25 (8.1)	29 (10.3)	15 (7.9)	14 (14.0)
STROKE	0 (0)	2 (0.7)	3 (1.6)	1 (1.0)
REVASCLARISATION	34 (11.0)	20 (7.1)	20 (10.6)	0 (0)
ALL-CAUSE DEATH	9 (2.9)	14 (5.0)	12 (6.3)	4 (4.0)
<b>Second ischemic recurrence</b>	<b>22 (7.1)</b>	<b>20 (7.1)</b>	<b>28 (14.8)</b>	<b>11 (11.0)</b>
STEMI	2 (0.6)	2 (0.7)	3 (1.6)	3 (3.0)
NSTEMI	9 (2.9)	5 (1.8)	12 (6.3)	4 (4.0)
STROKE	0 (0)	1 (0.4)	3 (1.6)	1 (1.0)
REVASCLARISATION	8 (2.6)	7 (2.5)	10 (5.3)	3 (3.0)
ALL-CAUSE DEATH	3 (1.0)	5 (1.8)	0 (0)	0 (0.0)
<b>Third event or more</b>	<b>14 (4.5)</b>	<b>14 (5.0)</b>	<b>18 (9.5)</b>	<b>5 (5.0)</b>
STEMI	4 (1.3)	4 (1.4)	4 (2.1)	0 (0.0)
NSTEMI	6 (1.9)	7 (2.5)	11 (5.8)	3 (3.0)
STROKE	0 (0)	0 (0)	0 (0)	0 (0.0)
REVASCLARISATION	3 (0.9)	2 (0.7)	6 (3.2)	1 (1.0)
ALL-CAUSE DEATH	1 (0.3)	1 (0.4)	1 (0.5)	1 (1.0)
<b>Total number of events</b>	<b>120 (38.8)</b>	<b>113 (40.2)</b>	<b>111 (58.7)</b>	<b>50 (50.0)</b>

**Table 2: Cox regression multivariate analysis adjusted on clinical**

	First Recurrence	Second recurrence or more
	AdHR 95%CI, p value	
Upper class	Reference	
Middle class	1.18 (0.87 - 1.60), p=0.2	1.13 (0.40 – 3.17), p=0.3
Labor work	1.41 (1.02- 2.0), p=0.04	1.91 (0.67 – 5.42), p=0.4
Unemployment	1.42 (1.03 - 2,1), p=0.04	2.32 (0.78 – 6.89) p=0.4

**Conclusion: Professional status is an indicator of the evolution of premature coronary artery disease. Unemployment appears to be an independent risk factor for recurrence.**