Abstract: P3625

**Cocaine consumption and acute coronary syndrome: an analysis from the Swiss registry AMIS Plus**

**Authors:**
G Garzoli¹, L Biasco², D Radovanovic³, G Pedrazzini¹, ¹Cardiocentro Ticino - Lugano - Switzerland,
²University of Lugano, Departement of Biomedical Sciences - Lugano - Switzerland, ³UZH - Institute of Social and Preventive Medicine - Zurich - Switzerland,

**Topic(s):**
Coronary Artery Disease – Epidemiology, Prognosis, Outcome

**Citation:**

Introduction: The aim of this study is to evaluate the cardiovascular impact of cocaine in a population of patients enrolled in the Swiss nationwide AMIS Plus registry with a focus on in-hospital outcomes.

Methods: We retrospectively analysed data of patients enrolled in the Swiss AMIS Plus registry from 2007 to 2018. Baseline and in-hospital data of patients with ACS and cocaine use were compared with the remaining AMIS population as well as to a sex and aged matched ACS patients (1:5 ratio, 540 patients) without history of cocaine consumption. Primary endpoints were death and major adverse cardiac and cardiovascular events (MACCE).

Results: A total of 20'981 patients had been included in the AMIS Plus registry for ACS in the study period, of them 110 (0.5%) were cocaine user.

As compared to the remaining AMIS population, cocaine abusers were significantly younger (46.4±10.8 vs 66.4±13.2 years; p<0.001), presented more frequently with out of hospital cardiac arrest (11.8% vs 4.7%, p<0.001) and STEMI (68.2% vs 54.7%, p=0.007). Apart from active smoke and family history, had a lower burden of CV risk factors. In hospital mortality (3.6% vs 4.4%; p=1) and MACCE (5.4% vs 5.5%; p=0.83) were comparable.

When compared to the age matched ACS population without history of cocaine consumption, cocaine abusers were more frequently smokers (87.6% vs 63.6%, p<0.001) but less frequently obese (10.4% vs 25.6%, p=0.001). Clinical presentation was comparable among the two groups, nonetheless cocaine abuse was associated with a higher incidence of death (3.7% vs 0.7%, p<0.05) and MACCE (5.6% vs 1.3%, p<0.05).

Conclusion: This analysis presents the largest series of cocaine associated ACS available in literature. Cocaine abuse increases by 5 the risk of mortality and by 4 the risk of MACCE as compared to an age matched ACS population. No differences where observed in outcomes when compared to a 20 years older population.