

Figure 1 Prognostic impact of recreational drug use on major adverse cardiovascular and cerebrovascular events.

**Method** In this prospective multicentric study, all consecutive patients admitted to ICCUs over two weeks in April 2021 at 39 centres across France were included. Screening for recreational drug use was performed by systematic urinary testing. One-year follow-up consisted of a clinical visit or direct contact with the patient and the referring cardiologist. The primary composite outcome was the occurrence of one of the combined MACCE defined as cardiovascular death, nonfatal myocardial infarction (MI) or stroke. Subgroup analysis was performed in patients hospitalised at baseline for acute coronary syndrome.

**Results** Of the 1499 consecutive patients screened, 1392 (93%) patients ( $63 \pm 15$  years, 70% males) had a complete 1-year follow-up. Among them, 157 (11%) had an initial positive test (cannabis, opioids, cocaine, amphetamines, MDMA). After 1-year of follow-up, 94 (7%) patients experimented MACCE. Drug use was associated with a higher rate of MACCE (13 vs. 6%,  $P=0.002$ ; Fig. 1). After adjustment for traditional prognosticators, recreational drug use remained independently associated with the occurrence of MACCE (HR = 2.99; 95% CI: 1.73–5.16,  $P<0.001$ ). In the subgroup analysis of 713 patients hospitalised for acute coronary syndrome, 96 (14%) had a positive testing and 50 (7%) experienced MACCE. Recreational drug use was still independently associated with MACCE after adjustment for traditional prognosticators (HR = 2.98; 95% CI: 1.43–6.21,  $P=0.004$ ).

**Conclusion** In a large cohort of consecutive patients admitted to ICCUs for acute cardiovascular events, the prevalence of recreational drug use was 11%. Drug use was strongly associated with the occurrence of 1-year MACCE even after adjustment for traditional prognosticators.

**Disclosure of interest** The authors declare that they have no competing interest.

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## The impact of intraoperative hemoadsorption during cardiac surgery for infective endocarditis

A. Serradj<sup>1,\*</sup>, C. Radu<sup>1</sup>, E. Bergoend<sup>1</sup>, A. Fiore<sup>1</sup>, P. Lim<sup>2</sup>, R. Huguet<sup>2</sup>, G. Saiydoun<sup>3</sup>, T. Folliguet<sup>1</sup>

<sup>1</sup> Chirurgie cardiaque, hôpital Henri-Mondor, AP-HP, Créteil, France

<sup>2</sup> Cardiologie, CHU Henri-Mondor, Créteil, France

<sup>3</sup> Chirurgie cardiaque, AP-HP, Paris, France

\* Corresponding author.

E-mail address: [serradjamine@outlook.com](mailto:serradjamine@outlook.com) (A. Serradj)

**Introduction** Sepsis and systemic inflammatory response syndrome (SIRS) caused by infective endocarditis (IE) may translate into significantly increased postoperative morbidity and mortality after cardiac surgery.

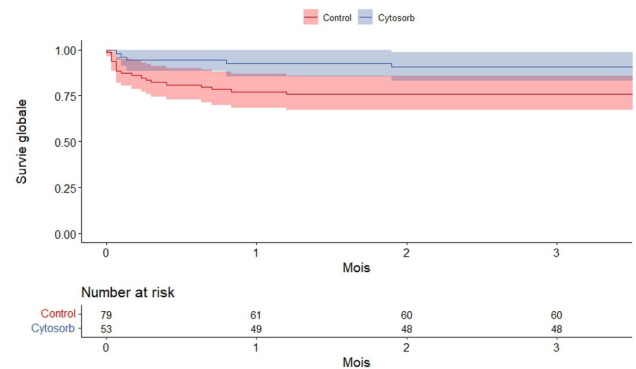


Figure 1 Postoperative mortality at 30 and 90 days.

**Objective** We sought to evaluate the impact of intraoperative hemoadsorption therapy (CytoSorbents, Princeton, NJ, USA) on the incidence of postoperative vasoplegia and postoperative mortality at 30 and 90 days.

**Method** From 01/2020 to 12/2023, 149 patients underwent cardiac surgery for IE. Patients treated with intraoperative hemoadsorption therapy (HA-group) were compared to patients not treated with this novel therapy (control group). The endpoints were the incidence of vasoplegic syndrome within the first 7 postoperative days defined as: low blood pressure despite optimal fluid balance with > 2 L of saline perfusion, increased vasopressor need (norepinephrine 0.5 mg/h) to maintain a mean blood pressure > 65 mmHg, or cardiac index > 2.2 L/min/m<sup>2</sup> with or without inotropic support, and overall mortality at 30 and 90 days.

**Results** A total of 132 patients were able to be included in the final analysis with complete follow-up ( $n=53$  in the HA-group and  $n=79$  in the control group). No significant differences in baseline demographics or intraoperative characteristics were observed regarding (age, gender, cardiopulmonary bypass (CBP)-time or aortic cross clamp-ACC-time). The average duration of CytoSorb use was 117 minutes. The average intensive care length of stay was shorter in the HA-group ( $6 \pm 3$  days vs.  $11 \pm 5$  days in the control group). Postoperative vasoplegic syndrome was more frequent in the control group (53 vs. 27%). Overall mortality was significantly reduced in the HA-group at 30-days (7.5 vs. 21.5%,  $P=0.03$ ) and at 90-days (11.3 vs. 25.3%,  $P=0.04$ ) (Fig. 1).

**Conclusion** Intraoperative hemoadsorption therapy has the potential to attenuate postoperative vasoplegia. This finding may translate into reduced postoperative mortality after cardiac surgery for IE which has been shown in the present analysis. Future larger trials are needed to confirm the current findings.

**Disclosure of interest** The authors declare that they have no competing interest.

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