ASSOCIATED AKI IN A MIDDLE-INCOME CARIBBEAN

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BACKGROUND AND AIMS: Data on AKI incidence and clinical outcomes in patients undergoing cardiopulmonary bypass (CPB) surgery in high-income countries are limited. We aim to report the incidence and outcomes of AKI in patients following CPB surgery in a middle-income country.

METHOD: We conducted a hospital-based, cross-sectional study of 259 patients with symptoms consistent with AKI following CPB surgery from October 2014 to August 2020. AKI was defined as an elevation of serum creatinine by at least 0.3 mg/dL within 48 hours, or a doubling of baseline serum creatinine. We recorded demographic data, duration of CPB, duration of aortic crossclamping, duration of bypass, transfusion requirements, infections, and outcome. Continuous variables were compared using the Mann-Whitney U test and categorical variables were compared using Pearson’s chi-square test.

RESULTS: A total of 259 patients were enrolled, with a median age of 64 years (IQR 56-72) and a median Euro-score II of 1.4 (IQR 0.6-2.6). AKI occurred in 37.3% (80) of patients with 43.8% (35) KDIGO I, 32.5% (24) KDIGO II, and 23.7% (11) KDIGO III. AKI was associated with a prolonged bypass time (1.73, 1.21-2.48; odds ratio, 95%CI: 5.32, 1.72-15.90), Prolonged PT. Besides, one-fourth of AKI patients turned to chronic kidney disease. Mortality was relatively low (0.4%). In multivariable logistic regression analyses, AKI was independently associated with age (HR, 95%CI: 1.02, 1.005-1.037), duration of CPB (HR, 95%CI: 1.004, 1.001-1.0066), and duration of aortic crossclamping (HR, 95%CI: 1.01, 1.002-1.019). The hospital stay was 8.1 versus 3.3 days, p < 0.001. AKI patients had increased risk of AKI.

CONCLUSION: The incidence of AKI after CPB surgery is high, with associated increased risk of AKI and prolonged hospital stay. Future studies are needed to investigate the long-term impact of AKI following CPB surgery in middle-income countries.

MO375 Figure 1: Kaplan-Meier survival estimates for AKI
**CONCLUSION:** Covid-19 pandemic affected also the nephrological population with an increased rate of first aid units’ accesses, acute kidney injury events and hospitalization comparing to 2019. However, these differences were detectable only during the I lockdown period characterized by the suspension of all ambulatorial activity, including our Unit. The absence of statistically significant differences during summer and primarily during II lockdown period demonstrates the importance of nephrological ambulatorial activity in management of renal diseases and in prevention of acute events.