AP232: The Affect of Acute Kidney Injury On Mortality After Successful Cardiopulmonary Resuscitation by Using RIFLE and KDIGO Criteria

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Background and Aim: Acute kidney injury affects mortality and morbidity in critical ill patients. There is not enough study for acute kidney injury prevalence and mortality that occur after successful cardiopulmonary resuscitation. In our study we investigated the effect of acute kidney injury on mortality after cardiac arrest.

Materials and Methods: In this study, we evaluated 109 patients retrospectively after successful cardiopulmonary resuscitation accepted to intensive care unit between 2014-2016. We identified acute kidney injury using RIFLE and KDIGO criteria. We investigated also the relation with acute kidney injury and mortality.

Results and Discussion: We found more patients diagnosed with acute kidney injury by using KDIGO (Table 1)

Table 1. Renal injury according to RIFLE and KDIGO

RIFLE stage	KDIGO stage					P
		STAGE 0	STAGE 1	STAGE 2	STAGE 3	
	STAGE 0	37(33.9%)	21(19.2%)	0	0	
	STAGE 1	0	10 (9.1%)	1(0.9%)	0	
	STAGE 2	0	0	6(5.5%)	6(5.5%)	
	STAGE 3 (+4+5)	0	0	0	28(25.6%)	

It seems to be related with the difference in the first step renal injury between two criteria. 51 (46.7%) patients were diagnosed using RIFLE and 72 (66.1%) patients were diagnosed using KDIGO ($p<0.01$). Mortality rate was significantly higher in patients with acute kidney injury in both groups that were diagnosed by RIFLE or KDIGO criteria ($p<0.01$). (Table 2)

Table 2. Renal injury and mortality numbers of patients

	Renal injury	Death	Survive	p
RIFLE	No	37 (44.6%)	21 (80.8%)	0.003
	Yes	46 (55.4 %)	5 (19.2%)	
	Total	83 (100%)	26 (100%)	
KDIGO	No	21 (25.3%)	16(61.5%)	0.001
	Yes	62 (74.7%)	10 (38.5%)	
	Total	83 (100%)	26 (100%)	

Conclusion: In conclusion, we found acute kidney injury increases mortality and morbidity rates after cardiac arrest. KDIGO was more sensitive to determine acute kidney injury after successful cardiopulmonary resuscitation than RIFLE. More studies are needed to evaluate mortality rate and acute kidney injury after resuscitation.