

ACUTE KIDNEY INJURY – CLINICAL

SP239 ACUTE KIDNEY INJURY ASSOCIATED TO INCREASED PLATELET ADHESION AND AGGREGATION IN CRITICALLY ILL CANCER PATIENTS

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Introduction and Aims: The association between uremia and bleeding due to impaired platelet function has been previously described in AKI patients. However, patients with cancer usually present hypercoagulable state. Thus, we sought to evaluate

the effect of uremia on platelet function in cancer patients.

Methods: We prospectively analysed patients admitted to the Intensive Care Unit of a Cancer University Hospital with sepsis. Renal dysfunction was classified according to the AKIN criteria. Impact-R was used to evaluate platelet function under near physiological flow conditions using cone and plate technology. In this test, an image analyser quantifies the adhered platelets and results are expressed as percentage of well surface covered by aggregates (SC %) as an index of adhesion and average size of the aggregates (AS microm²) as an index of aggregation.

Results: A total of 144 patients were enrolled in this study. AKI developed in 98 patients (AKIN 1 - 34, AKIN 2 - 25, AKIN 3 - 39) compared to 46 cancer patients without AKI; mean age 61±13y; 57% male; 86% solid tumors, 14% hematological tumors. The evaluation of platelet function by Impact-R[®] showed that platelet adhesion was higher in the severe AKI group.

Conclusions: Severe renal dysfunction (AKIN 3) increases platelet adhesion in cancer patients.

SP239 Table 1: Laboratory and Impact-R parameters

	Without AKI (a)	AKIN 1 (b)	AKIN 2 (c)	AKIN 3 (d)	
Urea (mg/dL)	52 (41; 56)	89 (81; 106)	74 (51; 91)	134 (99; 196)	p<0,05 (a vs. b; a vs. c; a vs. d; b vs. d; c vs. d)
Creatinine (mg/dL)	0,85 (0,48; 0,9)	1,88 (1,55; 1,91)	1,07 (0,89; 1,92)	3,02 (2,2; 6,17)	p<0,05 (a vs. b; a vs. c; a vs. d; b vs. d; c vs. d)
Hemoglobin (g/dL)	8,45 (8,1; 11,5)	10,3 (10,2; 11,55)	9 (8; 9,4)	10,2 (8,8; 11,2)	p= 0,094
Platelets (x1000/mm ³)	119,5 (44; 180)	90 (62; 134)	214 (89; 258)	212 (59; 303)	p= 0,392
SC (%)	10 (8; 11)	15 (13; 16)	11 (10; 18)	17 (13; 18)	p<0,05 (a vs. d)
AS (mm ²)	53 (34; 65)	66 (61; 69)	50 (44; 58)	54 (51; 60)	p= 0,139