

PRONOSTIC VALUE OF URINE NGAL (Ungal) and IL18 (UIL18) IN CRITICAL ILL PATIENTS AT THE ADMISSION TO AN INTENSIVE CARE UNIT (ICU)

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INTRODUCTION AND AIMS: Acute Kidney injury (AKI) in ICU is common and tightly associated with mortality. NGAL and IL18 are promising biomarkers for early AKI detection. However the comparative performance of uNGAL and U IL18 remains to be validated.

AIMS: To estimate the diagnostic accuracy of uNGAL and IL18 at the admission to an adult general ICU for early detection of AKI,

METHODS:

STUDY: We conducted a prospective observational study of 302 consecutive adult patients admitted to a general ICU in HU Princesa. The study was approved by the institutional review board. Informed consent was obtained from patient surrogate. AKI was defined by KDIGO criteria

Patients were follow up 30 days until their discharge from hospital or their death

Clinical information: sex, age, cause of admission, APACHE, SAPS index, AKI, need RRT, Charlson index, need of RRT

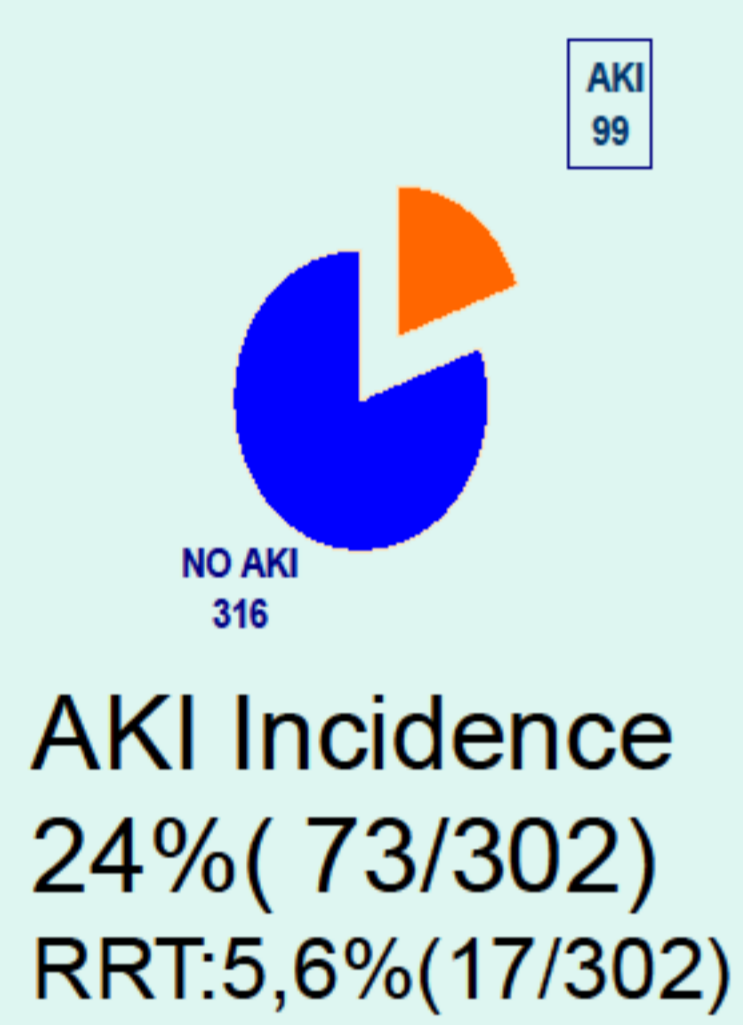
Samples: uNGAL, u IL18 at the admission in the ICU. Creatinine daily till 96h, weekly and discharge creatinine.

NGAL was done by standardized clinical Platform ATCHITECT assay (Abbott). IL 18 was made by ELISA (Human IL-18 instant NN267

Statistical analysis: Spss 17 was used. Diagnostic characteristic of uNGAL and IL18 were evaluated with receiver-operating characteristic (ROC) curves for AKI diagnosis.

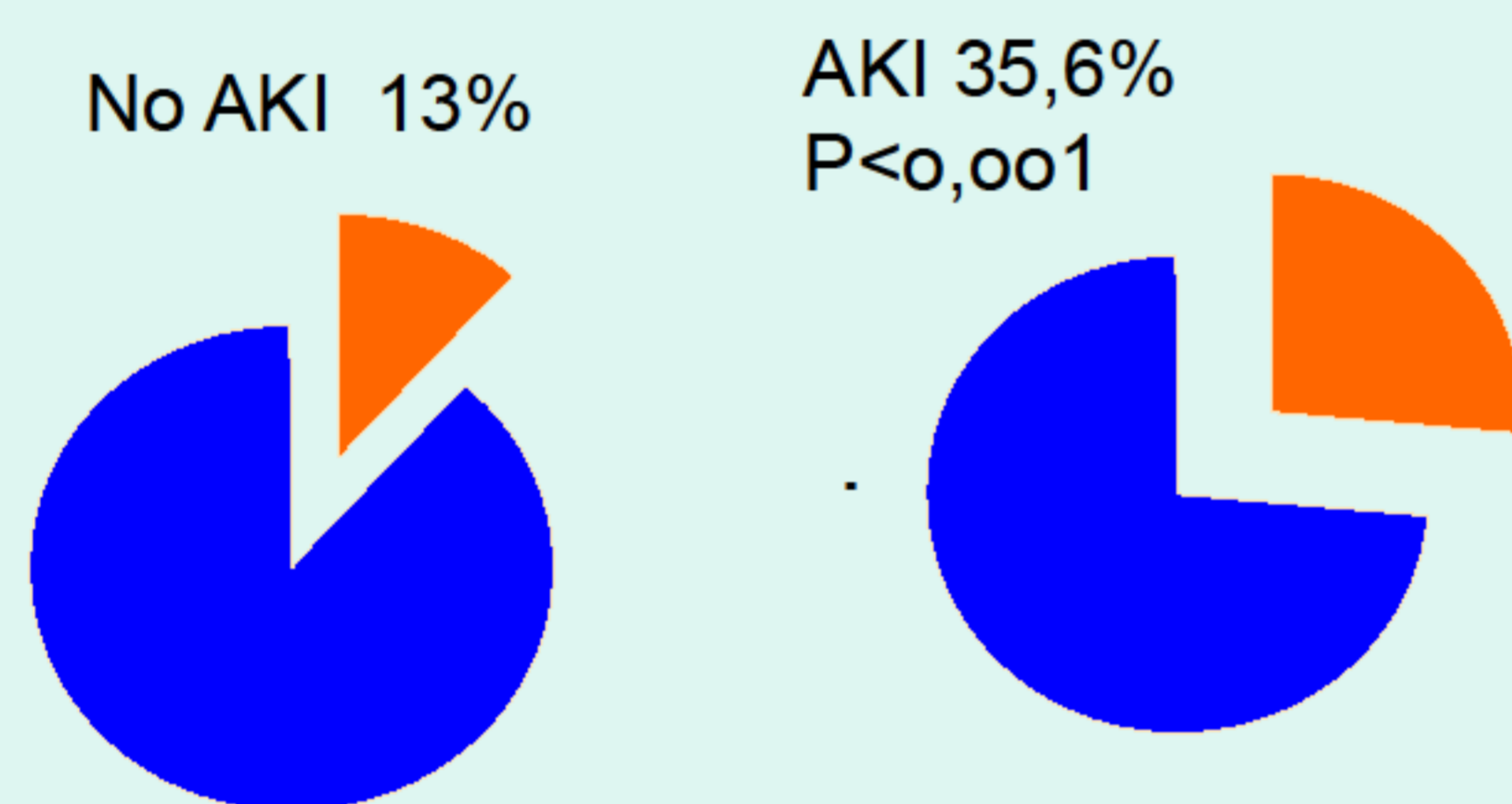
RESULTS

RESULTS 1: AKI INCIDENCE



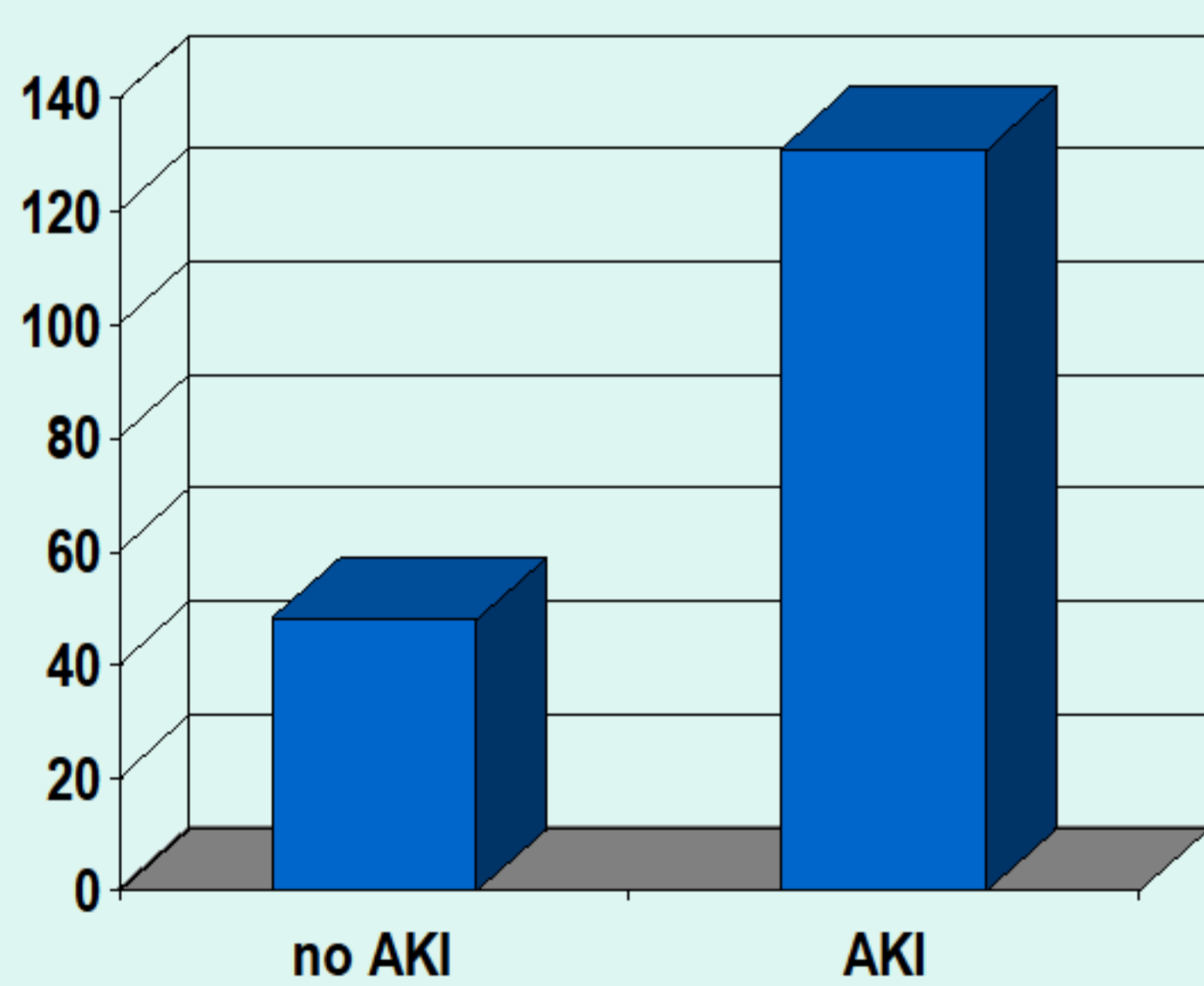
RESULTS 2: MORTALITY

Mortality total : 17% (56/302)
Mortality No AKI: 13% 30/229
Mortality AKI: 35,6% (26/73)

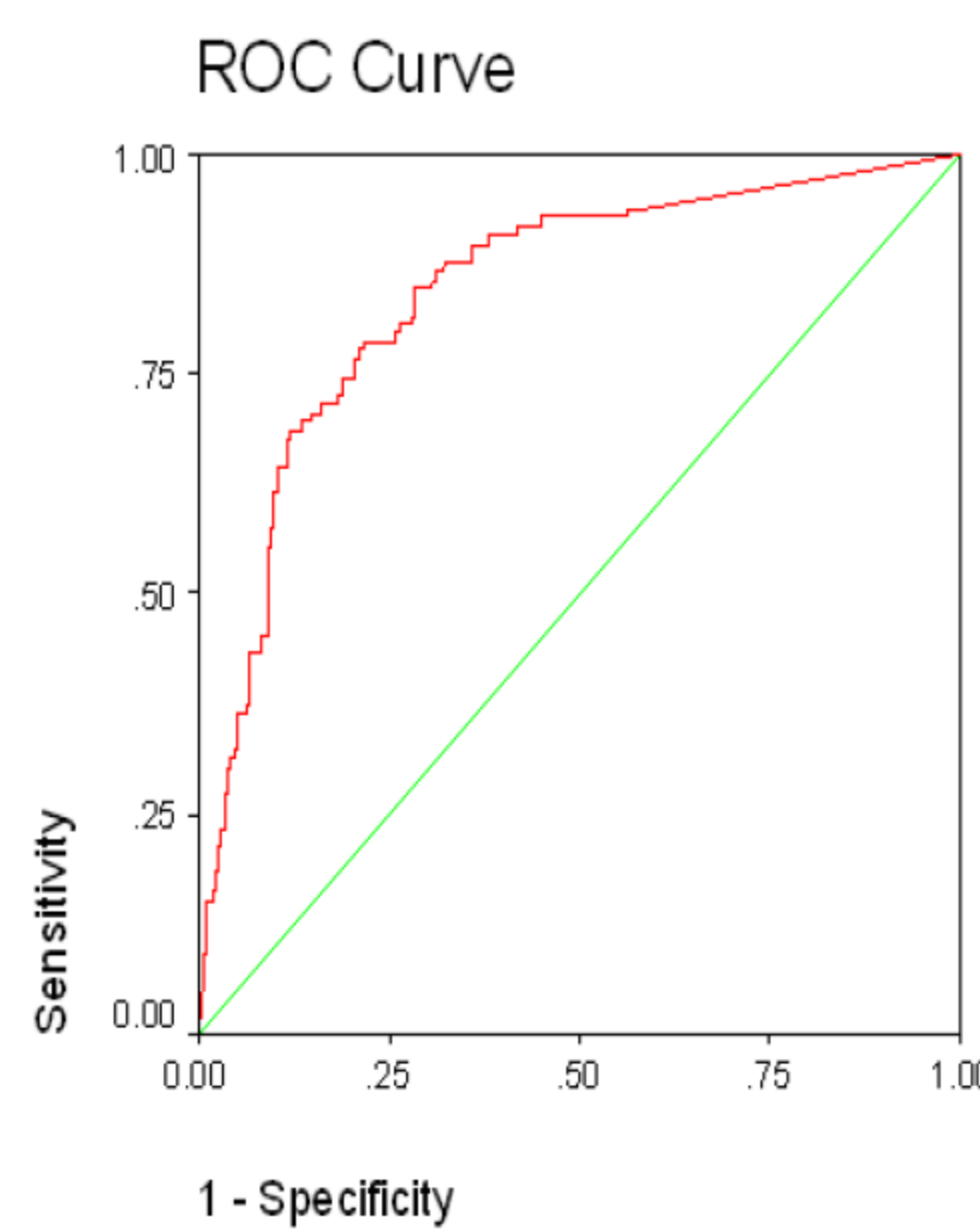
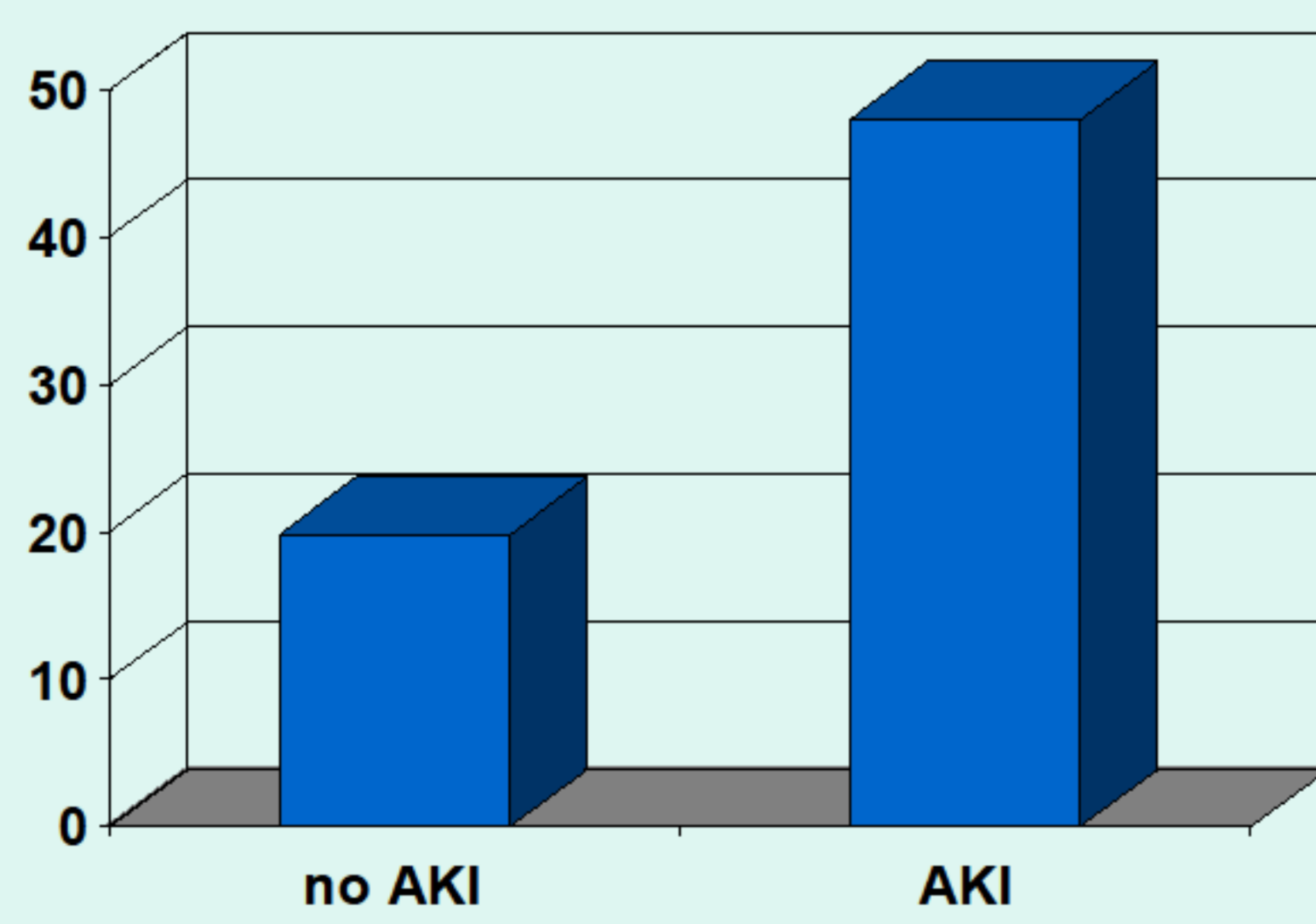


	AKI (n= 73)	No AKI (n=229)	
Age	67±13	62±15	P NS
APACHE	22,2±9	15,5 ±6,4	P <0,0001
SAPS	48,7±20,5	33,1 ±15,3	P < 0,0001
Basal MDRD ml/min	67±21	90±28	P < 0,0001
Charlson index	5,1±2,3	4,05±2,5	P NS
ICU days	10±9	6±8	P < 0,0001

RESULTS 3: NGALu in AKI and no AKI group (p<0,0001)

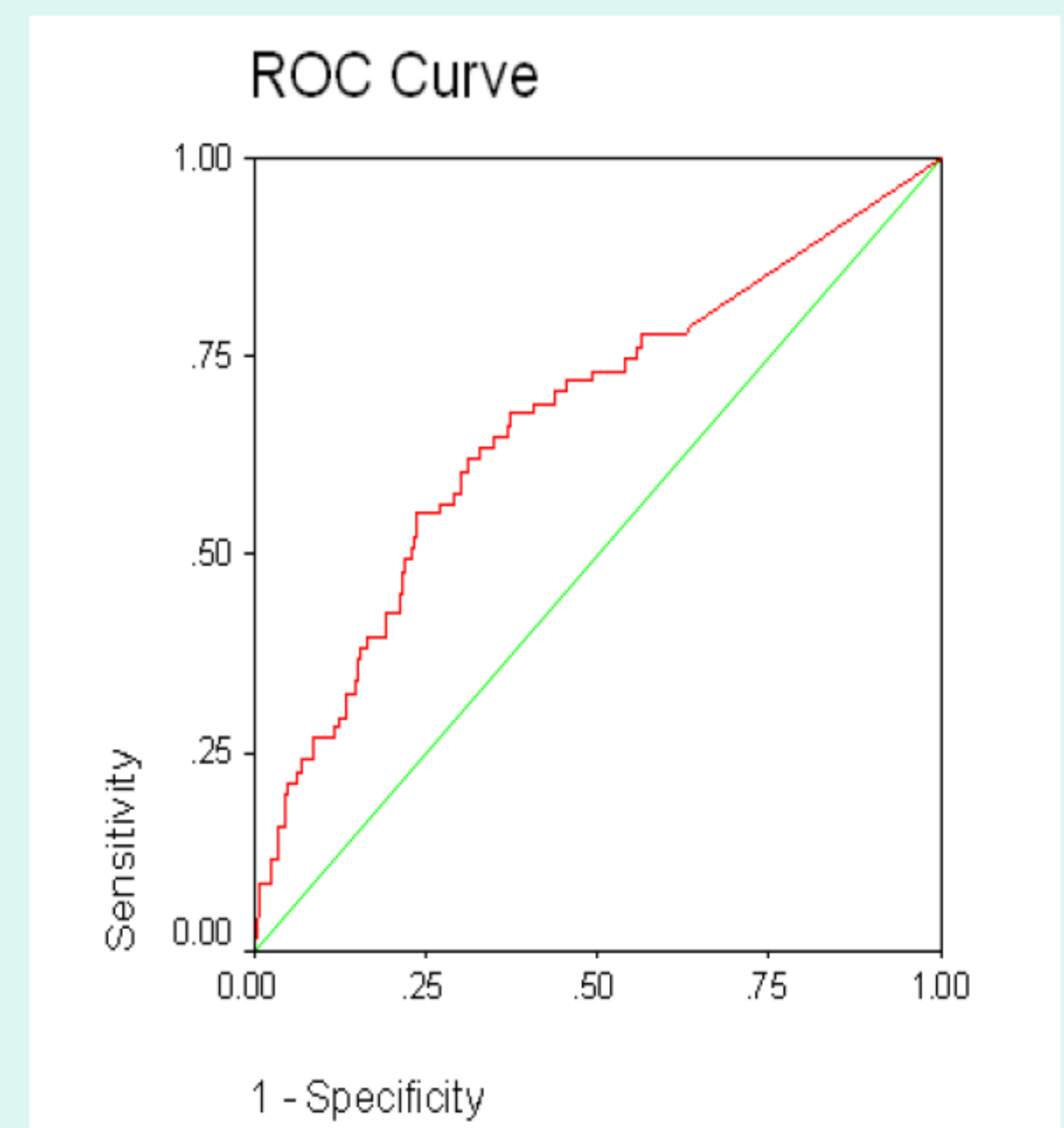


RESULTS 4: IL 18 in AKI and no AKI group (p<0,0001)



RESULTS 5: ROC curves

5-1-ROC curve for basal NGALu at admission and AKI occurrence 0.79 (IC 0.74 a 0.84) p<0.001



5-2- ROC curve for IL18 and AKI occurrence 0.69 (IC 0.62 a 0.76) p<0.001

CONCLUSIONS

Urine NGAL and IL 18 in urine at admission in ICU can predict AKI, but in our experience ROC curve for NGAL is superior

