Abstract Type : Poster exhibition
Abstract Submission No.: A-0429
Abstract Topic : Acute Kidney Injury

Overlooked Contrast induced nephropathy diagnosis : Incidence and prognosis

Tae Won Lee[1], Eunjin Bae[1], Sehyun Jung[2], Se-Ho Chang[2], Dongjun Park[1]
[1]Department of Internal Medicine-Nephrology, Gyeongsang National University Changwon Hospital, Korea, Republic of
[2]Department of Internal Medicine-Nephrology, Gyeongsang National University Hospital, Korea, Republic of

Objectives : Contrast-induced nephropathy (CIN) is one of the common causes of acute kidney injury (AKI), often presenting with a favorable prognosis, which makes it easily overlooked during diagnosis. The purpose of this study was to investigate the clinician's efforts to detect CIN after CM exposure and the prevalance of CIN.
Methods : This study was conducted as a single-center, prospective, observational study and targeted patients hospitalized at GNUCH from July-2024 to December-2024. The study included adults aged 18 years or older with CKD who were exposed to CM through procedures such as CT or CAG. Exclusion criteria were pediatric patients, patients undergoing hemodialysis, those with AKI within the past three months. Creatinine levels were measured at two-time points: pre-exposure(P0), and within 48 hours post-exposure(P2). CIN was defined according to KDIGO guidelines.
Results : Among 44,853patients who underwent CT from March 2016 to June 2024 as outpatients of our hospital, 43,721(97.4%) did not have renal function evaluation within 72hours after CT, and 39,408(87.9%) did not have renal function evaluation within 7 days. A total of 182 participants were enrolled in the study, with a mean age of 73.25 ± 2.8 years; 56% were male. CIN was identified in 33 patients (18.1%). Among these, 23 patients(12.6%) had CKD stage 3, and 5 patients(2.7%) each had CKD stages4 and 5. CIN occurrence was significantly higher in patients using ARB(53.7% vs. 72.7%, p=0.046) and inotropic agents(4.7% vs. 18.2%, p=0.007).
Conclusions : The occurrence of CIN can have a significant impact on renal function and prognosis, but most clinicians overlook it and do not perform laboratory tests after CM exposure. We should be aware that the incidence of CIN may be higher than expected, and we should make continuous efforts to preserve patients' renal function through early detection and treatment of CIN.

제목 없음 11.jpg

	No-CIN	CIN	P value
Age, years	74.2±12.1	69.0±14.7	0.035
Male, n(%)	82 (55.0%)	20 (60.6%)	0.560
BMI	23.8±4.9	22.6±4.7	0.205
SBP, mmHg	131.6±24.0	122.8±30.4	0.071
DBP, mmHg	74.1±13.6	69.4±14.2	0.076
HR, n=/min	83.4±18.0	85.3±17.7	0.572
RR, /min	19.5±2.3	18.7±3.1	0.111
BT, ˚C	36.6±0.5	36.5±0.3	0.160
Diabetes, n(%)	32 (21.5%)	8 (25%)	0.793
Hypertension, n(%)	102 (68.5%)	24 (72.7%)	0.631
Heart Failure, n(%)	35 (23.5%)	6 (18.2%)	0.509
CAD, n(%)	35 (23.5%)	5 (15.2%)	0.295
Arrythmia, n(%)	21 (14.1%)	4 (12.1%)	0.766
Malignancy, n(%)	32 (21.5%)	8 (25.0%)	0.663
CVA, n(%)	25 (16.8%)	6 (18.2%)	0.846
Dyslipidemia, n(%)	25 (16.8%)	7 (21.2%)	0.545
Proteinuria, n(%)	55 (36.9%)	17 (51.5%)	0.121
Hemoglobin, g/dL	10.9±2.3	10.9±2.1	0.959
WBC, X 10^3 /uL	9.8±5.5	8.3±3.2	0.044
Platelet, X 10^3 /mm^3	220.4±118.4	198.4±85.9	0.329
Hba1c, %	6.5±1.4	6.6±1.7	0.706
BUN, mg/dL	28.8±16.8	33.9±22.7	0.146
Creatinine, mg/dL	1.47±0.47	1.99±1.02	0.006
Uric acid, mg/dL	6.1±2.2	5.6±2.4	0.323
AST, U/L	47.0±65.3	68.1±112.7	0.315
ALT, U/L	36.6±56.8	53.5±115.4	0.433
Sodium, mmol/L	137.5±4.9	137.1±6.6	0.690
Potassium, mmol/L	4.1±0.8	4.1±0.7	0.784
Osmolality(mOsm/kgH2O)	296.2±10.0	304.0±19.2	0.122
U. Osmolality(mOsm/kgH2O)	431.7±148.9	479.8±165.6	0.294
U. Na, mEq/L	73.4±44.0	82.4±49.8	0.478
eGFR(MDRD) ml/min/1.73m2	47.4±11.3	39.2±15.0	0.005
eGFR(EPI2021) ml/min/1.73m2	47.7±11.9	39.7±15.8	0.010