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frozen plasma with clinico-biological improvement. ADAMTS-13 activity level was 1% without autoantibodies (<12U/ml). Two years after the inaugural episode, he maintains stable renal function (creatinine 200 µmol/l) using regularly fresh frozen plasma perfusion.

Conclusions: This is a constitutional and severe ADAMTS-13 deficiency, with atypical renal involvement and absence of hypertension at presentation. The neurological manifestations, appeared nine months after the onset of the disease, rectified the diagnosis. Initial improvement with corticosteroid therapy and plasmapheresis suggest that autoantibodies may also be present. Regular supplementation of deficient protein maintained remission.

No conflict of interest

POS-027

CRITICAL ILLNESS AND SYSTEMIC INFLAMMATION ARE KEY RISK FACTORS OF SEVERE AKI IN PATIENTS WITH COVID-19



HARDENBERG, JHB*¹, Stockmann, H², Aigner, A³, Eckardt, KU², Schmidt-Ott, K²

¹Charité Universitätsmedizin Berlin, Nephrology and Medical Intensive Care Medicine, Berlin, Germany, ²Charité Universitätsmedizin Berlin, Nephrology and medical intensive care medicine, Berlin, Germany, ³Berlin institute of Health, Epidemiology, Berlin, Germany

Introduction: Acute kidney injury (AKI) has emerged as an important complication in COVID-19 patients. However, the relationship of AKI to the overall disease course remains incompletely understood. Here, we provide insights into COVID-19-associated AKI by conducting a detailed longitudinal analysis of clinical parameters and their association with AKI development.

Methods: In this observational cohort study of COVID-19 patients treated at three hospitals of a tertiary care referral center, baseline characteristics and longitudinally evolving clinical and laboratory parameters were collected. AKI was defined and staged according to the Kidney Disease: Improving Global Outcomes (KDIGO) classification. Descriptive statistics and explanatory multivariable Cox regression modeling with clinical parameters as time-dependent covariates were used to identify risk factors of severe AKI (KDIGO Stage 3).

Results: Out of 223 consecutive COVID-19 patients, 70 (31%) developed severe AKI, of which 95.7% required kidney replacement therapy. Patients with severe AKI were older, predominantly male, had more comorbidities and displayed excess mortality. Severe AKI occurred exclusively in intensive care unit patients and 97.3% of patients developing severe AKI had respiratory failure. Mechanical ventilation, vasopressor therapy, and inflammatory markers (serum procalcitonin levels and leucocyte count) were independent time-varying risk factors of severe AKI. Increasing inflammatory markers displayed a close temporal association with development of severe AKI.

Conclusions: Severe AKI in COVID-19 patients is temporally associated with critical illness and spiking systemic inflammation and does not occur uncoupled from overall disease severity.

No conflict of interest

POS-028

OUTCOMES OF INTERMITTENT PERITONEAL DIALYSIS IN PAEDIATRIC POPULATION



Ismal, K*¹

¹C/O Dr. S V Subba Rao, Radiology, HYDERABAD, India

Introduction: Acute kidney injury is a common condition among paediatric population which may be due to varied etiology and treatment includes proper balance of fluids and electrolytes, if indicated renal replacement therapy. In resource limited settings and in young children where equipments and trained dialysis personnel are not available, Intermittent peritoneal dialysis(IPD) serves as a promising modality to improve outcomes and prevent mortality in children suffering from AKI.

Aims & Objectives:

1. To study the role of IPD among paediatric population.
2. To assess the short term outcomes of paediatric AKI.

Methods: A total of 78 cases of children up to the age of 15 years who presented to the department of Nephrology Osmania general hospital with AKI irrespective of the cause requiring peritoneal dialysis from September 2018 to March 2019 were included in the study. Peritoneal

dialysis was continued for 1 to 5 days based on the clinical condition. All children were evaluated for the short term outcomes and complications of peritoneal dialysis.

Results: Out of 78 cases, 7 (9%) were neonates, 15 (19%) were infants, 56 (72%) were children from 1 to 15 years of age. 41 (52.5%) were males and 37 (47.4%) were females. 18(23%) children had underlying structural abnormalities. Biopsy was done in 40 cases, IRGN was most common (20%) followed by FSGS (20%), IgA nephropathy (15%), CIN (15%), Crescentic GN (10%), TMA (10%), ATN (10%).

Duration of PD was 1 to 5 days with average duration of 2.5 days.

On analysing the outcomes, 23 children (29.4%) had complete recovery of renal function among them majority had biopsy findings consistent with ATN or IRGN. 19 children (24.3%) expired during the course of illness. 36 (46.1%) children had progression of the illness with 11 children (30.55%) requiring CAPD for maintenance therapy, most of who had underlying FSGS/CIN. Peritonitis was observed in 14 (17.9%) children with culture being positive in 5 and negative in 9 patients. Dyselectrolytemia was observed in 34 patients (43.58%), 24 (70%) having hypokalemia.

Conclusions: Intermittent Peritoneal dialysis serves as one of the effective treatment option for children presenting with AKI in resource limited settings.

No conflict of interest

POS-029

PATTERNS OF AKI IN PATIENTS HOSPITALISED WITH COVID-19 DURING THE FIRST WAVE OF THE COVID-19 PANDEMIC IN A LARGE UK TERTIARY CENTRE



JEWELL, P*¹, Bramham, K¹, Smith, P¹, Kibble, H¹, Norton, S², Mudhaffer, A¹, Akter, M¹, Zuckerman, B¹, Palmer, K¹, Murphy, C¹, Iatropoulou, D¹, Sharpe, C^{1,2}, Lioudaki, E¹

¹King's College Hospital NHS Foundation Trust, King's Kidney Care, London, United Kingdom, ²King's College London, Faculty of Life Sciences and Medicine, London, United Kingdom

Introduction: Acute kidney injury (AKI) in patients hospitalised with COVID-19 is common, and is associated with worse prognosis, especially among critically unwell patients. The aim of this study was to investigate the epidemiology, risk factors and impact of AKI on patients hospitalised with COVID-19 in a large UK tertiary centre.

Methods: We retrospectively collected and analysed data from electronic health records of all adult patients admitted with a clinical and laboratory-confirmed diagnosis of COVID-19 across both hospital sites of large UK tertiary centre from 1st March to 13th May 2020, during the first wave of the COVID-19 pandemic in the UK. Those with pre-existing end-stage kidney disease or possible hospital-acquired COVID-19 were excluded. Incidents of AKI were identified using KDIGO criteria and weekly incidence rates were calculated. We developed a logistic regression model to identify predictors of AKI, and a Cox regression model to investigate the impact of AKI on mortality.

Results: 1248 inpatients were included, with a mean age of 69 years and male preponderance of 58.8%. Chronic kidney disease (CKD) defined as eGFR < 60 ml/min/1.73m² was present prior to admission in 16.6%. AKI occurred in 39% (n=487) patients, including stage 1 51% (n= 248), stage 2 13% (n=64) and stage 3 36% (n=175). 109 patients (8.7% of total, 22% of all AKI) required renal-replacement therapy (RRT). Of those who developed AKI and were discharged alive, 219 (84.6%) had recovered renal function to baseline creatinine by time of discharge and none required on-going RRT. The incidence rate of AKI increased on a weekly basis initially, peaking at 2.19 per 100 person-days at weeks 5 to 6, before reducing at a similar pace to 1.41 per 100 person-days by the end the study period (week 9 to 10).

	Total (n=1248)	No AKI (n=761)	All AKI (n=487)	P value
Age (years), mean (SD)	68.9 (17.0)	67.4 (18.2)	71.2 (14.7)	< 0.001
Male sex, n (%)	734 (58.8%)	423 (55.6%)	311 (63.9%)	0.004
Ethnicity, n (%)				0.003
White	613 (49.1%)	392 (51.5%)	221 (45.4%)	
Black	342 (27.4%)	183 (24.0%)	159 (32.6%)	
Asian	102 (8.2%)	69 (9.1%)	33 (6.8%)	
Mixed, other or unknown	191 (15.3%)	117 (15.3%)	74 (15.1%)	
Hypertension, n (%)	681 (54.6%)	346 (45.5%)	335 (68.8%)	< 0.001
Diabetes, n (%)	406 (32.7%)	207 (27.4%)	199 (40.9%)	< 0.001
CKD with eGFR<60 ml/min/1.73m ² , n (%)	207 (16.6%)	77 (10.1%)	130 (26.7%)	< 0.001
RRT required, n (%)	109 (8.7%)		109 (22.4%)	< 0.001
ICU admission, n (%)	192 (15.4%)	43 (5.7%)	149 (30.6%)	< 0.001
Death in hospital, n (%)	333 (26.7%)	128 (16.8%)	205 (42.1%)	< 0.001