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OBJECTIVE

Acute Renal Failure (AKI) occurs in 0,5-23% COVID-19 patients during hospitalization. In these patients, the principle of carrying out CRRT using the CytoSorb adsorbent cartridge lasting 24 hours is based on the role that pro-inflammatory cytokines play in the pathogenesis of Acute Respiratory distress syndrome (ARDS).

PRESENTATION

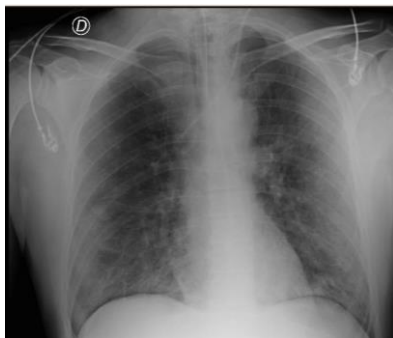
A 59-year-old COVID 19 male patient suffering from dysthyroidism and hypertension, was admitted to the Intensive Care Unit (ICU) for ARDS. Laboratory test showed: serum creatinine of 2.27 mg / dl with eGFR 30 ml / min CKD-Epi, anemia, thrombocytopenia and lymphopenic leukocytosis.

METHOD

After 1 month from hospitalization, an oligoanuric AKI led to the start Continuous renal replacement therapy (CRRT) lasting 24 h using Continuous Hemodiafiltration (CVVHDF) cartridge via left jugular with a subsequent clinical improvement and an adequate diuresis. After three days from the last hemodialysis treatment, the patient complained of abdominal pain in the right hypochondrium, so that he was treated with empirical antibiotic therapy after Computed Tomography (CT) examination.

RESULT

In the course of this acute event (VEDI ABSTRACT), an alteration of renal function indices was recorded, although an adequate diuresis with negative water balance was detected with oral diuretic therapy. The laboratory, radiological and clinical data were suggestive of "acute cholecystitis", so, the patient was cholecystectomized in hemodynamically stable conditions, thanks to the previous extracorporeal dialysis treatments.



(Fig. 1): "... reduction of parenchymal transparency at the bases of both sides and in the right paracardiac area where a subtle parenchymal hypodiaphania is recognized in the absence of pleural effusion; normal heart size".



Fig.2: "... large area of interstitial thickening in the upper left lobe and predominantly sub-pleural areoles with a more tenuous appearance, sub-pleural bands and lines and bi-basal consolidation phenomena; bilateral pluriparieto-basal effusion; signs of paraseptal emphysema, on the right; kidneys in place, regular in morphology and volume, with good and symmetrical opacification.

CONCLUSION

In the postoperative period, the patient did not present post-procedural complications or need for further hemodialysis treatments; instead, he had a Progressive increase of the eGFR. On admission, creatinine and e GFR values was (vedi abstract) higher than those of hospitalization (creatininemia 1.54 mg / dl ,eGFR 49 ml / min). This case suggests the validity of Continuous Hemodiafiltration for the treatment for oligo-anuric AKI in Sars-CoV-2 infection.