

Bulletin de la Dialyse à Domicile

First viral replication of Covid-19 identified in the peritoneal dialysis fluid of a symptomatic patient.

(Première réplication virale du Covid-19 identifiée dans le liquide de dialyse péritonéale d'un patient symptomatique.)

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CLINICAL CASE

A 25-year-old patient on peritoneal dialysis (PD) since August 2019 was hospitalized in the Nephrology department on April 08, 2020 for a clinical presentation suggestive of a COVID-19 infection. His main antecedent was end-stage chronic renal failure secondary to chronic interstitial nephritis associated with Crohn's disease. The patient described the recent onset of flu-like symptoms associated with moderate fever (not exceeding 38 ° C), cough and asthenia. On admission, he showed no signs of clinical severity: no oxygen dependence or signs of respiratory distress.

The nasopharyngeal swab for SARS-CoV2 by RT-PCR was negative. However, the chest CT scan showed condensing interstitial lesions typical of COVID-19 infection, affecting 25 to 50% of the lung parenchyma.

After discussion with the HCL virology department, a quantitative SARS-CoV2 RT-PCR was performed on the peritoneal dialysate on April 9 and returned positive. There was no clinical or biological evidence for PD fluid infection: absence of abdominal pain, clear PD fluid, with normal cell count and formula.

The next day, the patient presented a significant polypnea, justifying his transfer to the intensive care unit.

RETRACTED, see <https://www.rdplf.org/index.php/bdd/article/view/54713>

DISCUSSION

The COVID-19 pandemic is characterized by a disease with mainly respiratory tropism and varying severity (1). The nasopharyngeal swab screening test has a sensitivity of between 56 and 83% depending on the study (2) and the chest CT scan remains the «Gold Standard» for the diagnosis of certainty of pulmonary involvement (2).

Viral excretion of COVID-19 has been described in both urine and stool (3; 4) with the risk of contamination by stool. No viral replication in the peritoneal dialysis fluid has been reported to date and the pathophysiology remains to be specified.

Not knowing the risk of viral transmission through the PD fluid of contaminated patients, special attention must be paid to the disposal of this biological waste.

REFERENCES

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