

it is a unidirectional valve with an antireflux mechanism, the risk of back flow of the dialysate to the ventricles is small.⁹

There is no consensus among the authors about whether there is benefit obtained from the migration of the site of ventricular bypass at the same time of the surgical insertion of the peritoneal catheter. Abo et al. suggest that in patients whose shunt is made when the patients is already on PD, the technique should be reviewed, opting for ventriculo-atrial shunt.¹⁰

Our PD experience with DVP is that it is safe, efficient, without procedure associated infections. Since the period of time of observation has been relatively short, it is not possible to determine whether with a longer period of DVP there would be an increased risk of alterations in the physiology of the peritoneal membrane, and consequently a failure in clearance. We conclude that this modality of RRT was performed successfully and objective studies that support its safety in the adult population are still lacking.

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Use HFR-supra for inflammatory bowel disease: A case report[☆]

Uso de HFR-supra en la enfermedad inflamatoria intestinal: a propósito de un caso en hemodiálisis crónica

Dear Editor,

We present the case of a 33-year-old patient, diagnosed in 2011 with inflammatory bowel disease (Crohn's disease). He

presents ileocolitis with torpid evolution, corticoid dependence and failure of multiple treatments (azathioprine, methotrexate and adalimumab) due to side effects. It is associated to complex perianal requiring drainage of a perianal abscess and follow-up of general surgery.

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Table 1 – Inflammatory parameters during the three stages of the patient's treatment.

	Pre-HD	Home HD conventional	HFR-supra
Calprotectin; mg/kg	>1000	No data	25.8
PCR; mg/l	1.95	1.75	1.7
NLI	1.42	1.97	2.17
PLI	62.35	106.25	102.01
Ferritin; ng/ml	557	412.3	247

HD: hemodialysis; NLI: neutrophil/lymphocyte index; IPL: platelet/lymphocyte index; CRP: C-reactive protein.

In December 2014, he was admitted due to progressive swelling, proteinuria of 500 mg/dl, hypoproteinemia of 6 g/dl, and hypoalbuminaemia of 2.3 g/dl. Initially he maintained normal renal function but it deteriorates gradually until Cr 1.7 mg/dl. A kidney biopsy was performed with a diagnosis of secondary renal amyloidosis (AA), with intense tubulointerstitial fibrosis. Given these findings, he received 3 boluses of methylprednisolone (500 mg) along with the start of monthly infliximab, but again he presented poor tolerance to treatment with biological therapy, and it has to be suspended. The patient remains asymptomatic from 2015 until the beginning of 2020 when he was admitted due to an exacerbation of his chronic kidney disease, with a negative autoimmune study and abdominal ultrasound compatible with chronic nephropathy. During admission the serum creatinine was of 11 mg/dl (estimated GFR by CKD-EPI, 5 mg/ml/min/1.73 m²), nephrotic range proteinuria 4 g/24 h, along with hyperphosphatemia, hyperuricemia, metabolic acidosis, and anemia. With a previous diagnosis of secondary amyloidosis (AA), it was decided to start renal replacement therapy with hemodialysis (HD) through a right jugular tunneled CVC in February 2020.

Given the characteristics of his underlying disease, 2 months later it was decided to start HFR-supra with the idea of controlling the inflammatory state associated with the patient's underlying disease.

We decided to retrospectively evaluate the inflammatory status of the patient during 3 periods (before the start of HD, with conventional HD and after 2 months of HFR-supra) to assess the efficacy of the treatment both clinically and analytically. CRP, ferritin, INL and IPL were measured as markers of general inflammation and calprotectin as a marker of intestinal inflammatory activity (Table 1).

Since the change in technique, he has not presented a recurrence of his disease (currently under treatment with colchicine that has not changed), the frequency and characteristics of bowel movements and episodes of pain improved.

Inflammatory bowel disease includes Crohn's disease and ulcerative colitis. They are intestinal diseases characterized by being immune-mediated, with inflammatory activity and of a chronic evolution with flare-ups and alternating with recurrent periods of remission.

The HFR-supra technique combines convention, adsorption, and diffusion. Currently, there are multiple studies that show good results in multiple myeloma,¹ in the control of inflammatory markers due to a decrease in pro-inflammatory

cytokines, NOS, IL-6 and p-Cresol^{2–4} and has even shown to be useful in diseases such as porphyria cutanea tarda.⁵

Our case explores the usefulness of the technique in systemic diseases with a predominance of inflammation at a local intestinal level. However, clinical trials are needed to confirm this effect. As in other isolated case publications,⁵ our hypothesis is based on the fact that this technique could eliminate the inflammatory molecules derived from the secondary oxidative stress of the disease itself, with the consequent improvement of the patient's symptoms.

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