

Utilization of HA130 filter in patients with refractory pruritis

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Received:20 Mar 2025; Accepted:25 Mar 2025; Published:05 April 2025

Citation: AL_Najafi S. Utilization of HA130 filter in patients with refractory pruritis. AJMCRR. 2025; 4(4): 1-2.

Purpose:

To determine the efficacy of utilizing hemoperfusion “HA130” to alleviate pruritis in end stage renal disease patients requiring hemodialysis.

after explaining risks and potential benefits.

Data was collected and stored on a password protected Excel sheet.

Methods:

We present a case series of 5 patients on regular hemodialysis for a period of > 1 year 3 times weekly per protocol, with Kt/V+ 1.2-1.3. These patients all had refractory pruritis while on conventional treatment, per Visualized Analogue Scan (VAS) and Modified Duo’s Pruritis Score (MDPS).

The patients had baseline labs as well as VAS and MDPS score pre-intervention. The intervention included a total of 36 sessions of hemodialysis with utilization of HA130 filter once a week for 12 weeks. The patients were closely monitored and their labs were rechecked after 38 HD sessions. In addition to that, the MDPS and VAS scores were re-taken to assess response for pruritis.

Informed consent was obtained from the patients

Results:

	Patient 1		Patient 2		Patient 3		Patient 4		Patient 5	
Gender	M		M		F		F		F	
Age (Yrs)	57		65		46		75		72	
	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post
SCr (mg/dL)	12.05	12.57	10.8	10.2	9.82	11.3	5.86	3.9	9.47	11.7
Na (mEq)	133	133	134	140	136	139	138	142	134	137
K (mEq)	6.3	5.3	8.3	5.7	5	5.15	4.35	4.12	6.88	6.33
Calcium (mg/dL)	9.15	9.06	8.9	9.5	9.55	8.26	9.38	7.98	9.54	9.4
Phosphorous (mg/dL)	4.99	3.74	6.5	3.2	4	4.86	2.85	3.4	7.26	6.6
PTH (pg/ml)	48.7	39.68	153	73.9	1365	1757	14	x	584	496
VAS	7	1	7	4	5	2	10	3	5	4
MDPS	36	28	40	32	26	18	36	22	32	32

Table 1: patients with pre and post interventions lab values as well as VAS+MDPS scores

The patients had stability in serum electrolytes post intervention when compared to baseline labs. The VAS and MDPS scores recorded as above.

The data above shows evidence of improvement of pruritis symptoms with a mean improvement on MDPS of 5.6 points, and VAS of 4 points. Despite the fact that one patient did not have any objective change on their VAS and MDPS, she did have subjective improvement of her pruritis symptoms.

Mean	Pre	Post
SCr	9.6	9.934
Na	135	138.2
K	6.166	5.32
Ca	9.304	8.84
PO4	5.12	4.36
PTH	432.94	591.645
VAS	6.8	2.8
MDPS	34	26.4

Table 2: values with means

Conclusions

The data above shows evidence of stability of elec-

trolytes demonstrating that the addition of HA130 filter to existing HD filter Nepro polysulfone med-flux 2.1 m2 Dialyzer (HA130 filter was placed proximal to HD filter) did not interfere with the efficacy of HD as they remained stable and comparable.

Per VAS and MDPS a significant improvement was noted with the utilization of HA130 filter.

Clinical Implications

The effect of pruritis on the quality of life of ESRD patients requiring HD is quite significant and though the etiology is likely to be multifactorial we have demonstrated a subjective and objective improvement of pruritis in patients treated with HA130 once weekly for 12 weeks.

Our case series is small and with limited power due to sample size, however it does show some promise in potential non-pharmacologic interventions for pruritis.