the weak correlation of iCa and pfCa as well as a low number of patients with a severe metabolic complication, the results of our study question the necessity of intensive pfCa monitoring during RCA-CRRT. Present results need to be validated in further trials.

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**NEW MEDIUM CUT-OFF MEMBRANE VS ONLINE HEMODIAFILTRATION IN CLEARANCE OF MIDDLE MOLECULES. PRELIMINARY RESULTS FROM OUR CENTRE**

Paolo Albrizio¹, Silvano Costa¹, Annalisa Foschi¹, Ivo Angelo Antonio Milani¹, Stefano Rindi¹, Manuela Zucchi¹, Fabio Milanesi¹

¹U.O.C. di Nefrologia e Dialisi, ASST of Pavia, Voghera, Italy

**INTRODUCTION AND AIMS:** Nowadays, high-flux membranes represent the standard treatment in bicarbonate hemodialysis (HD). Despite of the undeniable benefits in clearance compared to low-flux membranes, their capability in clearance of medium molecules remains poor, especially compared to online hemodiafiltration (HDF), a treatment however not available for clinical reasons in all patients. Recently, became available in Italian market the Theranova VR 400, defined as first medium cut-off membrane for a significant clearance of molecules under 45 kDa without inducing any reliable loss of albumin. The purpose is to reach a clearance of medium molecules during bicarbonate HD comparable to an online HDF. In this study we evaluated the reduction ratio (RR) of myoglobin (17kDa) in a sample of our patients chronically treated with their common hemodialysis membranes and then with new medium cut-off membrane comparing them with patients treated with online HDF.

**METHODS:** We evaluated 8 patients, randomly chosen within those chronically afferent to our Centre, 4 bicarbonate HD (1 man and 3 women, medium age 78 ± 14 years, 2 central venous catheters - CVC - and 2 arteriovenous fistulas - FAV -) and 4 online HDF (2 men e 2 women, medium age 77 ± 16 years, 3 CVC e 1 FAV). Plasmatic myoglobin levels were dosed pre-post dialysis in two sessions, one after short and one after long interdialytic interval. After that, the 4 HD patients were shifted to medium cut-off membranes, without changing parameters as dialysis length, blood and dialysate flow, and monitored for two further treatments for pre-post dialysis plasmatic myoglobin levels. Data were expressed as medium ± standard deviation. Statistical significance (P < 0.01) was evaluated with Student’s T-test. No differences were found between groups concerning dialysis length and blood and dialysate flow. No notable complications affected any dialytic treatment.

**RESULTS:** Bicarbonate HD patients treated with common high-flux membranes presented a medium increase in plasmatic myoglobin levels from pre to post-dialysis of 12.3 ± 15.3%, without any difference between short and long interdialytic interval (P = NS). The same patients, subjected to HD similar for length and blood and dialysate flow but with medium cut-off membrane, showed a medium RR of plasmatic myoglobin of 46.5 ± 7.7% (P < 0.01 vs bicarbonate HD). No significant statistical differences were found between short and long interdialytic interval (P = NS). Patient treated with online HDF showed a medium RR of plasmatic myoglobin of 42.7 ± 14.7% (P < 0.01 vs HD standard, P = NS vs medium cut-off membranes).

**CONCLUSIONS:** Our data confirm how bicarbonate HD with new medium cut-off membranes allows a significant removal of a 17 kDa molecule like myoglobin, comparable to online HDF with same features. As expected, these results are not reached with a bicarbonate HD with common high-flux membranes. These preliminary data must be studied in deep expanding the analyzed population, evaluating clearance of even larger molecules and assessing long-term effects on further biochemicals parameters.