

## Supplementary data

**Table 1. Primer pairs for various cytokines**

Gene	Primer/probe	Sequence
TNF- $\alpha$	Primer(forward)	5'-CCCCAGGGACCTCTCTCTAATC-3'
	Primer (reverse)	5'-GGTTTGCTACAACATGGGCTACA-3'
IL-6	Primer(forward)	5'AGAGTAGTGAGGAACAAGCCAGAG-3'
	Primer (reverse)	5'-GGCATTGTGGTTGGGTCAGG-3'
IL-8	Primer (forward)	5'-CTGGCCGTGGCTCTCTTGG-3'
	Primer (reverse)	5'-GGGTGGAAAGGTTTGGAGTA TGTC-3'
IL-10	Primer (forward)	5'-GCTGGAGGACTTTAAGGGTTACCT-3'
	Primer (reverse)	5'-CTTGATGTCTGGGTCTTGTTCT-3'

**Table 2. Baseline characteristics of predialysis CKD patients**

	<b>uremic non-dialysis group (total N = 16)</b>
Age (mean $\pm$ S.D.)	60.8 $\pm$ 14.2
Sex, Male, n, (%)	9 ( 56%)
Underlying disease, n, (%)	DM: 10 (63%), HTN 15 (94%) glomerulonephritis 1( 6%)
Mean eGFR (mean $\pm$ S.D.) stage, n, (%)	13.4 $\pm$ 7.8 Stage IV: 11 (69%), stage V: 5 (31%)
co-morbidity n, (disease entety)	ischemic heart disease: 2(angina) Cerebrovascular accident 1(MCA infarct) Liver disease: 2(child-class A Liver Cirrhosis)

**Table 3 comparing with paired group patients**

	<b>HD(n=27)†</b>	<b>HDF (n= 9)</b>	<b>P value</b>
<b>Gender, male, n(%)</b>	18(67%)	6(67%)	<b>0.665</b>
<b>Age(yr)</b>	59.3 ± 12.6	59.1 ± 14.7	0.886
<b>DM, n (%)</b>	18(67%)	6(67%)	<b>0.665</b>
<b>HTN, n (%)</b>	21(78%)	7(78%)	<b>0.690</b>
<b>Co-morbidity n (%)</b>	angina(6), old MI(1),	angina(2), old MI(0),	<b>0.602</b>
<b>Dialysis duration (months)</b>	60.2 ± 48.7	63.0 ± 41.5	0.615
<b>URR (%)</b>	71.7 ± 5.1	75.7 ± 7.2	0.117
<b>KT/V</b>	1.5 ± 0.3	1.7 ± 0.3	0.117
<b>WBC(/μL)</b>	6729 ± 1993	7157 ± 2811	0.774
<b>Blood neutrophil %</b>	65.6 ± 9.3	70.2 ± 8.8	0.357
<b>Blood monocyte %</b>	7.7 ± 2.5	5.9 ± 3.2	0.066
<b>Hemoglobin (g/dL)</b>	10.2 ± 0.8	10.5 ± 0.6	0.117
<b>BUN (mg/dL)</b>	71.4 ± 17.4	59.8 ± 19.2	0.062
<b>Creatinine (mg/dL)</b>	10.3 ± 2.5	10.2 ± 2.4	0.971
<b>CO2 (mmol/L)</b>	19.5 ± 2.9	21.1 ± 1.6	0.260
<b>Albumin (mg/dL)</b>	3.9 ± 0.3	3.9 ± 0.2	0.667
<b>Phosphate (mg/dL)</b>	4.6 ± 1.0	4.6 ± 1.5	0.472
<b>Ca (mg/dL)</b>	8.9 ± 0.8	8.7 ± 0.5	0.565
<b>CRP (mg/dL)</b>	3.9 ± 3.8	2.7 ± 2.6	0.330
<b>PTH (pg/ml)</b>	173.0±183.0	216.8±151.5	0.218
<b>Beta2M (mg/dL)</b>	25.9 ± 10.1	20.3 ± 6.2	0.096

<b>monocyte % (flow cytometry assay)</b>	5.9 ± 3.7	3.8 ± 1.7	0.222
<b>CD14<sup>+</sup>CD16<sup>+</sup>Mo.%(/ total monocyte)</b>	23.6 ± 13.0	11.2 ± 5.2	0.006
<b>CD14<sup>+</sup>CD16<sup>+</sup>Mo.%(/ total WBC)<sup>††</sup></b>	20.8 ± 21.4	8.7 ± 7.3	0.050
<b>CD14<sup>++</sup>CD16<sup>+</sup>Mo.%(/total monocyte)</b>	5.0 ± 3.5	5.8 ± 3.6	0.569
<b>CD14<sup>+</sup>CD16<sup>+</sup>Mo.%(/ total WBC)<sup>††</sup></b>	4.6 ± 3.9	4.3 ± 5.3	0.508
<b>TNF-α (pg/ml)</b>	95.6 ± 101.5	10.4 ± 21.8	0.010
<b>IL-10 (pg/ml)</b>	5.9 ± 13.1	2.7 ± 3.2	0.946
<b>IL-6 (pg/ml)</b>	641 ± 1377	17 ± 30	0.040
<b>IL-1β (pg/ml)</b>	29.3 ± 51.3	3.4 ± 8.4	0.021
<b>IL-8 (pg/ml)</b>	1595 ± 1827	80 ± 110	0.001

<sup>†</sup>We selected 27 HD patients who have similar baseline characteristics (sex, age, dialysis duration, DM, co-morbidity) with on-line HDF patients ( 3 fold selection)

<sup>††</sup>Monocyte count was normalized to total WBC count