

Abstract No. : A543

Theme : Rehabilitation, Quality of Life and Survival

## **What is the optimal timing of dialysis initiation?**

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**Background.** The optimal timing of initiating renal replacement therapy in patients with chronic renal failure remains uncertain. The primary objective of our study is to determine whether delaying dialysis initiation as a result of patients' choice may have any impact on survival in subjects with end-stage renal disease.

**Methods.** We prospectively studied the clinical outcome of all consecutive patients (N=233) deemed suitable for peritoneal dialysis (PD) after predialysis counseling over a 2-year period.

**Results.** There were 151 "elective starters" (50.3% male, mean±SD age=57.7±13.9 y, 39.7% diabetic) who were electively initiated on dialysis when glomerular filtration rate, estimated by averaging urea and creatinine clearances obtained from plasma and 24-hour urine samples, reached 10 ml/min/1.73 m<sup>2</sup> or below. The remaining 82 subjects (53.7% male, mean±SD age=58.4±11.3 y, 46.3% diabetic, P=0.33 vs elective starters) declined dialysis initially (refusers). On follow-up, 45 (55%) initial refusers developed an uremic emergency after a median of 12 weeks, and agreed to undergo dialysis, and 39 (48%) were eventually established on maintenance PD (late starters). Kaplan Meier analysis of one-year survival showed a significantly higher rate of all-cause (15.9% vs 4.0%, P=0.0003, log-rank test) and cardiovascular (9.8% vs 1.3%, P=0.0008) mortality among the initial refusers. Late starters also had higher rates of peritonitis (18 vs 42 patient-months/episode, P=0.003), hospitalization (3.14±1.17 vs 2.13±1.13 episodes, P=0.05), blood transfusion (0.8±0.35 vs 0.38±0.07 episodes, P=0.033), and less favorable nutritional indices during PD.

**Conclusion.** Delaying dialysis initiation till the onset of symptomatic uremia adversely affects survival and well-being during the first year of dialysis.