EFFECT OF THE LONGER DURATION OF NEPHROLOGY REFERRAL ON ALL-CAUSE AND CARDIOVASCULAR MORTALITY IN HEMODYALISIS PATIENTS: 5 YEAR PROSPECTIVE STUDY

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INTRODUCTION AND AIMS

- There is no universally accepted definition and recommendation of the needed time for nephrology referral of patients with CKD
- The goal of this prospective study was to asses the impact of the longer duration of nephrology referral on all-cause and cardiovascular (CV) mortality in haemodialysis (HD) patients.

METHODS

- We studied the medical records of 261 patients (mean age 49.69±15.04, 17.2% diabetics) who have started HD in our Department between 1990 and 2004.
- Early referral (ER) and late referral (LR) were defined by the time of follow-up by a nephrologists greater than or less than 12 months, with 6 or more nephrology visits, before initiation of HD.
- The patients were prospectively followed in the next 60 months after starting HD.

RESULTS

- Out of 261 patients, 34% started HD in the ER group and 66% in LR group.
- At the time of the initiation of HD, mean estimated glomerular filtration rate was 8.54±3.44ml/min in the ER and 7.88±3.70ml/min in the LR (p=0.838).
- At the start of HD, ER patients had higher proportion of AVF, hemoglobin, albumin, diuresis and lower LVMI than LR. (tab.1)
- During HD treatment until follow-up the study, ER and LR remain significantly different with PP, hemoglobin, albumin, and Kt/V.(tab.1)
- During follow-up, 30.3% patients in the ER and 47.7% in the LR died, with significant difference in survival between ER and LR groups. (fig 1)
- All-cause mortality was higher both LR vs ER > 6 months and LR vs ER>12 months (Tab.2)
- CV mortality did not differ between LR vs ER>6 months but was higher for LR vs ER>12 moths (tab.2)

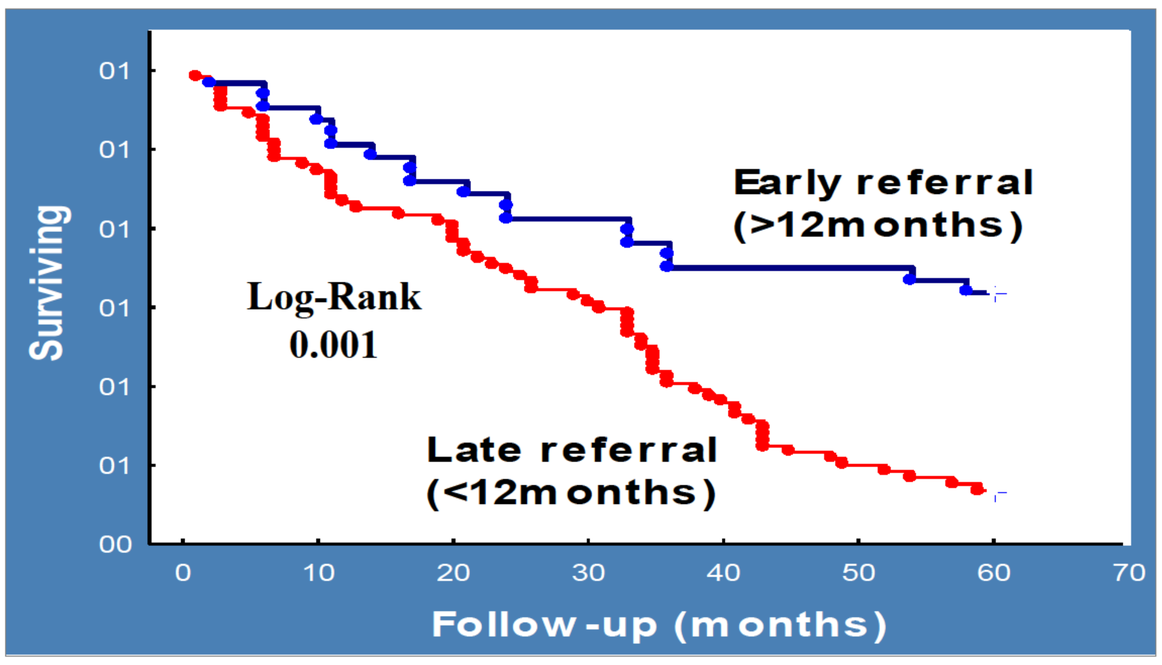
CONCLUSIONS

This study showed that early regular nephrology referral above 12 months before initiation of HD was associated with a reduced risk of all-cause and CV mortality in HD patients

Tab1. Comparasion between ER and LR

	Early refferal No=89(34%)	Late referral No=172(66%)	p
start pf HD			
eGFR, ml/min	8.54±3.44	7.88±3.70	ns
Hemoglobin, g/l	82.46 ± 16.57	78.20 ± 13.97	0.048
Albumin, g/l	39.74 ± 4.07	35.78 ± 6.31	0.000
Diuresis, ml	1325.64 ± 672.87	848.49 ± 532.18	0.000
LVMI, gm^2	145.79 ± 40.77	166.60 ± 52.23	0.031
AVF (%)	59.4	16.7	0.000
during HD reatment until follow-up			
Pulse pressure	52.83 ± 12.23	58.14 ±1 6.04	0.023
Hemoglobin, g/l	107.73 ± 12.34	101.05 ± 14.36	0.005
Albumin, g/l	39.01 ± 2.72	37.74 ± 3.98	0.024
Kt/V	1.25 ± 0.21	1.18 ± 0.21	0.026

Fig 1. Survival curves for all-causes mortality of HD patients in terms of ER vs LR



Tab 2. Hazard ratios for mortality among ER and LR

	All-cause mortality HR (CI 95%)	p	CV mortality HR (CI 95%)	p
LRvs ER > 6 months	1.68 (1.15-2.45)	0.007	1.46 (0.92-2.34)	ns
LR vs ER > 12 months	2.05 (1.33-3.15)	0.001	2.44 (1.38-4.30)	0.002

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