

Trends in Incidence and Outcome of Patients starting RRT for Multiple Myeloma in the new ERA-EDTA Registry



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Introduction

RRT treated multiple myeloma (MM) is an uncommon disease. In Europe, there is little recent published information available about this condition. The aim of this study was to investigate recent trends in incidence and outcome of MM in the new ERA-EDTA Registry.

Methods

- The database included the data on 72,096 RRT patients from the renal registries of Austria, Flemish-Belgium (Flanders), French-Belgium (Walloon), Denmark, Finland, Greece, The Netherlands, Norway and Scotland (UK-Sco) over the period 1985-1999.
- Incidence rates were adjusted for age and gender using the European standard population as a reference.
- First treatment modality was defined as treatment at day 90 after the start of RRT.
- We used Cox proportional hazards regression to analyze patient survival. The relative risk was expressed as Adjusted Hazard Ratio (AHR).
- To observe trends over time, patients were divided into 4 cohorts, according to the start of RRT.

Results

- 906 patients started RRT for MM, median age 68 year, 57% male.
- Mean age at start of RRT increased from 64 year in the 1985-1989 cohort to 67 year in the 1995-1999 cohort.
- Crude RRT treated MM incidence increased from 0.4 pmp in the 1985-1988 cohort to 1.6 pmp in 1997-1999 cohort.
- Figure 1 shows the trends in the adjusted incidence rates of total RRT and RRT for MM.

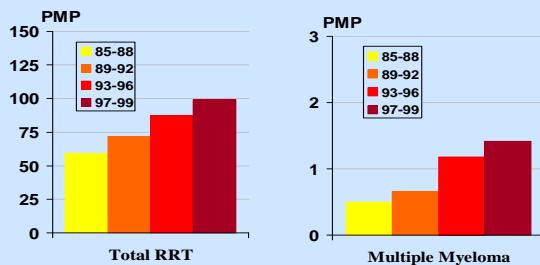


Figure 1
Adjusted incidence rates of total RRT and RRT for MM, by cohort

- Figure 2 shows the international differences in adjusted RRT treated MM incidence rates.

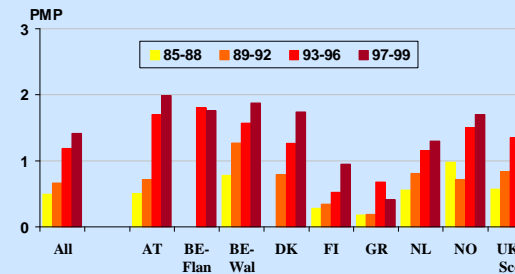


Figure 2
Adjusted incidence rates of RRT treated MM, by country and cohort

- First treatment modality in MM patients was 87% HD and 13% PD, without difference between age groups. Only 1.1% received a transplant while on RRT.
- Figure 3 shows the crude patient survival of MM patients compared to other dialysis patients. Median survival in the MM group was 11 months. Main causes of death were: malignancy 38%, cardiovascular 16% and infection 16%.
- Figure 4 shows that, adjusted for age and gender, MM patients had a 2.8 times (95% CI 2.6-3.0) higher risk of death compared to other dialysis patients. Adjusted dialysis patient survival did not change with time.

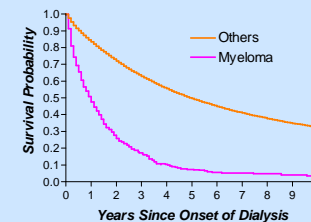


Figure 3
Patient survival on dialysis (crude): MM patients versus others

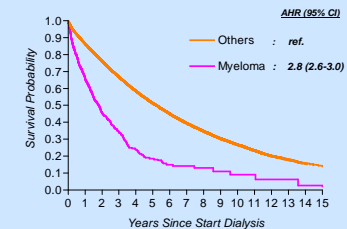


Figure 4
Adjusted patient survival on dialysis: MM patients versus others

Conclusions

- RRT treated MM is a rare disease of which the incidence in Europe has increased over the past 15 years, probably at least in part as a result of increased acceptance.
- The patient's prognosis at the start of RRT is unfavourable, compared to patients starting RRT for other diseases.
- Survival did not improve with time, probably because of the adverse prognosis of the underlying disease itself.