Introduction

Prognosis of immunoglobulin light-chain (AL) amyloidosis depends mainly on the presence of cardiac involvement and the disease burden. A higher bone marrow plasma cell (BMPC) burden has been suggested as an adverse prognostic factor.

Objectives

The aim of our study was to analyze the correlation between the BMPC infiltration, clinical features and outcomes in patients with AL amyloidosis at Hospital Clinic of Barcelona.

Materials & Methods

Clinical records of patients with AL amyloidosis (01/2006 to 04/2016) were reviewed.

- Seventy-nine patients (42F/37M; median age at diagnosis 65 years; interquartile range [IQR] 57-72) were the final group.
- Initial baseline demographics, clinical and laboratory data, treatment and follow-up were collected.
- Median follow-up for alive patients was 45 months (IQR 24-45 months).

BMPC analysis:

- Optic microscopic revision of May-Grünwald–Giemsa–stained BM smears processed according to standard procedures.
- All 79 patients had BM samples with adequate cellularity and BMPC analysis was reviewed by senior cytologists.
- BMPC infiltration was evaluated by senior cytologists.
- The results obtained by both group of cytologists was excellent (p <0.001).

Optic microscopic revision of May-Grünwald–Giemsa–stained BM samples processed according to standard procedures.

Student’s t-test for continuous variables and χ2 test for categorical variables, or non-parametric tests when necessary. PFS was defined as survival from diagnosis until relapse or death from any cause. OS was calculated from the date of diagnosis to the date of death from any cause or the date of last follow-up.

Conclusions

- Higher BMPC infiltration in patients with AL amyloidosis was associated with increased systemic organ damage, particularly cardiac involvement.
- This fact was not related to the development of myeloma features.
- These results suggest that treatment with “novel drugs” (bortezomib and lenalidomide) might overcome the negative prognostic impact of a higher BMPC infiltration.

Contact information

Luis Gerardo Rodriguez-Lobato: Department of Hematology, Hospital Clinic. Villarreal 170, PC: 08036, Barcelona, Spain. e-mail: lgrodriguez@clinic.cat