Smoldering Multiple Myeloma: a Demographic and Survival analysis of Retrospective Cohort Study in a University Hospital of Buenos Aires

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soho22 TENTH ANNUAL MEETING

Introduction

Smoldering multiple myeloma (SMM) is a heterogeneous asymptomatic precursor to multiple myeloma (MM). Progression rate to symptomatic disease is variable depending on tumor burden and biological risk factors. The Mayo Clinic published a risk stratification model to help differentiate these patients in 3 groups (low, intermediate and high risk)

Background

Although the patients with SMM have a higher risk of progression to MM in comparison to their counterparts with MGUS their clinical course can be highly variable. The standard of care for SMM, irrespective of the risk status, continues to be observation

Objective

To describe the demographic features of patients with SMM followed at the Hospital Italiano de Buenos Aires

Materials & Methods

Retrospective cohort study. Consecutive patients with confirmed diagnosis of SMM according to IMWG 2014 criteria between January 2005 and May 2022 were included in the study. Patients were risk stratified based on 20-2-220 Mayo Clinic Score and were followed from diagnosis until death, progression or loss to follow-up.

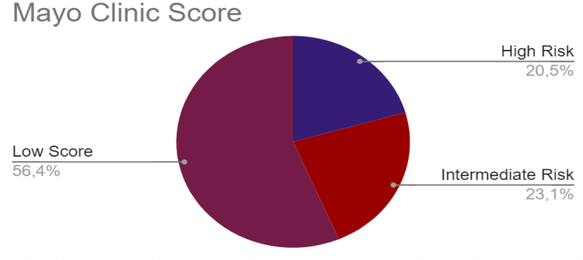
Results

Thirty-nine patients with SMM were included, of whom 16 (41%) were men. The median age at diagnosis was 69 years (95% CI: 55-77). Twenty-five patients (64%) had a previous MGUS. Nineteen patients (49%) had progression to MM. Eight (20%) of patients died, 3 (37%) secondary to myeloma. The most common type of band was IgG kappa with 55%. Median initial serum M spike was 1.5 g/dl. with a median clonal plasma cells in bone marrow biopsy of 15% (CI 95% 12-20), 29 patients (74.36%) were evaluated for bone lesions with PET/CT scan or MRI. Eight (21)% patients presented high risk of progression according to the Mayo clinic 20-2-20 score (9 patients, 23% intermediate score and 22, 56% low score).

Demographic and Clinical Characteristics of the Patients (n:39)	
Male (N %)	16 (41%)
Age (mean, CI)	69 years (95% CI: 55-77)
Previous MGUS (N %)	25 (64%)
Progression to MM (N %)	19 (49%)
Deaths (N %) Secondary to myeloma	8 (20%) 3 (37%)
Most common type of band: IgG kappa	55%
Initial serum M spike (median)	1.5 gr/dl
Clonal plasma cell in bone marrow biopsy (mean, CI)	15% (95% CI: 12-20)
Evaluation on lytic lesions (N %)	29 (74.36%)

Only 6 of the patients were tested for cytogenetic abnormalities by FISH, and 2 were positive for del(17)p.

The median follow-up of the cohort was 92 months (95% CI: 72.4-127.2). The estimated median TTP for the entire cohort was 71 months (95% CI, 55–94). The median TTP according to the Mayo Clinic score was 44 months (CI: 27-62) for high-risk patients, 86.5 months (CI: 69-94) for intermediate-risk patients, and 75 months for low risk.



Of the patients who presented del(17p) all progressed to myeloma during follow-up with a median TTP of 49 months (CI: 35-64). Four out of 8 patients with high-risk smoldering myeloma were included in clinical trials, and one of them received active treatment with monoclonal antibodies.

Discussion

Our cohort demonstrated characteristics similar to those published. Patients with high-risk Mayo score and del17p by FISH showed faster progression, which emphasizes the need to include them in research protocols.

References

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