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POSTER ABSTRACTS

652.Multiple Myeloma: Clinical and Epidemiological

Retrospective Analysis of Four Frailty Assessment Tools in Elderly Patients with Multiple MyelomaYujun Li¹, Jiangbo Zhang², Jianmei Xu³, Huimei Guo³, Jing Wang⁴, Songying Zhao⁴, Liyang Liu², Hua Xue⁵, Yao Liu, PhD MD⁶¹ Qianxinan people's hospital, Xingyi, China² Department of Hematology, Affiliated Hospital of Hebei University, Baoding, China³ Affiliated Hospital of Hebei University, Baoding, China⁴ Affiliated Hospital of Hebei University, Baoding City, Hebei Province, CHN⁵ Affiliated Hospital of Hebei University, Baoding City, Hebei Province, China⁶ Department of Hematology-Oncology, Chongqing University Cancer Hospital, Chongqing, China**INTRODUCTION :**

The International Myeloma Working Group (IMWG) developed the frailty index (IMWG-FI) to predict the toxicity and mortality risk faced by elderly patients with multiple myeloma. However, due to the time-consuming nature and subjectivity of IMWG-FI, alternative frailty assessment tools have been developed to reduce subjectivity and enhance the ability to identify frailty.

OBJECTIVE (S)

To assess the consistency of various frailty assessment tools in elderly patients with multiple myeloma and their predictive efficacy for patients survival.

METHOD (S)

We systematically assessed 84 newly diagnosed multiple myeloma patients aged ≥ 60 years old using various frailty assessment tools, including the IMWG frailty index (IMWG-FI), Mayo frailty score, simplified IMWG frailty index (IFM), and British Myeloma Research Alliance Risk (MRP) score. We compared progression-free survival (PFS) and overall survival (OS) outcomes based on these different assessment tools. For the purpose of analysis, we combined patients categorized as Fit or Intermediate Fit into a single group called Non-Frail.

RESULTS (S)

The median age of the included patients was 68 years, ranging from 60 to 84 years. Among them, 59.5% were male. Additionally, 53.8% had an ECOG score of ≥ 2 and 26.9% had a CCI score of ≥ 2 . Patients who chose the regimens based on ixazomib, bortezomib, and thalidomide were 11.2%, 70.7%, and 3.3%, respectively, while 7.8% of patients refused chemotherapy.

The incidence of frailty in this cohort was as follows: 53.6% according to the IMWG-FI, 23.8% based on the Mayo frailty score, 46.4% using the MRP frailty score, and 67.85% according to the simplified IMWG frailty index.

The consistency among the four frailty assessment tools was low, with a total of 64 patients (76.2%) identified as frail by at least one tool. Among them, 48 patients (75.0%) were identified as frail by at least two tools, while only 14 patients (21.9%) were classified as frail by all four tools.

Among the cohort of 73 patients eligible for OS and PFS analysis, utilization of the IMWG-FI to evaluate frailty status revealed that the non-frail and frail groups exhibited median OS durations of undisclosed levels and 15.5 months, respectively ($P=0.01$). In terms of PFS, the corresponding median durations were 42.5 months and 10.0 months, respectively ($P=0.011$). When employing the Mayo frailty score, the non-frail and frail groups demonstrated median OS durations of 26.0 months and 7.0 months, respectively ($P=0.004$), alongside median PFS durations of 42.5 months and 7.0 months, respectively ($P=0.024$). Application of the MRP score to assess frailty resulted in non-frail and frail groups achieving undisclosed levels and a median OS of 15.0 months, respectively ($P<0.001$). Their corresponding median PFS durations were 42.5 months and 9.0 months, respectively ($P<0.001$). Additionally, the utilization of the simplified IMWG frailty index for frailty assessment rendered non-frail and frail groups achieving undisclosed levels and a median OS of 19.0 months, respectively ($P=0.225$). Regarding the median PFS durations, they reached undisclosed levels and 15.0 months for the non-frail and frail groups, respectively ($P=0.495$).

CONCLUSION (S)

The results of the four frailty assessment tools in this cohort vary significantly. The MRP score and IMWG frailty index demonstrate higher consistency and better prognostic stratification efficiency compared to the Mayo score and simplified IMWG

frailty index. Therefore, combining the MRP score with the IMWG frailty index can effectively enhance the recognition ability for newly diagnosed elderly patients with frail multiple myeloma.

Disclosures No relevant conflicts of interest to declare.

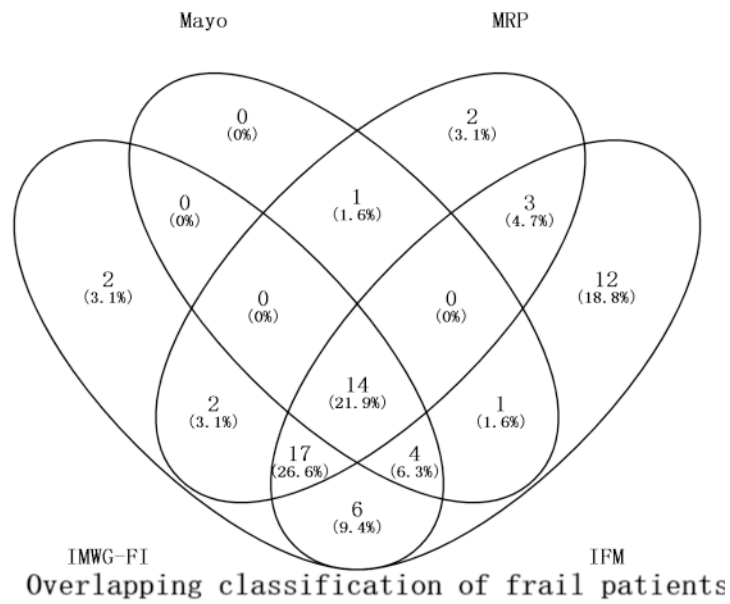


Figure 1

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