# The importance of physical function in patients with multiple myeloma for improving quality of life

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#### **Purpose**

To find out the relation between physical function and quality of life in multiple myeloma patients.

### Method

This is retrospective cross-sectional study. Patient's data (N=58) with multiple myeloma who were consulted to the department of rehabilitation medicine from October 2017 to May 2018 were reviewed. Physical function was evaluated with Mini-Balance Evaluation Systems Test (Mini-BESTest). For evaluation of quality of life, EORTC QLQ-C30 and QLQ-MY20 were assessed by patient. Fatigue severity score and Beck Depression Index were collected to evaluate symptom and psychological status. Compare to normative value of mini-BESTest based on previous study, patients were divided into two groups. Thirty-two patients (Group 1) were in normal value and twenty-five patients (Group 2) were below. Clinical features were reviewed to find out the contributing factors to physical function: age, sex, disease duration and stage, cancer type, duration after transplantation, and baseline and current laboratory findings.

## Result

Positive correlation was present between mini-BESTest score and global health status and QoL score (r=0.279, P=0.035). Physical function and QoL score were decreased with lower albumin level, severe disease related symptoms, and depressed patients. The Group 2 patients showed lower hemoglobin and albumin (P=0.024, 0.004 respectively). The Group 2 had shorter duration after stem cell transplantation (P=0.017), and shorter disease duration, though not statistically significant.

#### Conclusion

In patients with multiple myeloma, physical function has a significant relationship with quality of life. Low albumin level, severe disease related symptoms, and depression were related to decreased physical function. Not only phschosocial status but also object medical condition affects physical function, and it consequentially affects quality of life in multiple myeloma patients.