

## **P1**

### **Prevalence of Sarcopenia Among Prostate Cancer Patients in Korea**

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#### **Objective**

Sarcopenia refers to a decrease in skeletal muscle or lean body mass (LBM). Prostate cancer is second most commonly diagnosed cancer in male. The pharmacological suppression of testosterone by androgen deprivation therapies (ADT) has become a mainstay of treatment in prostate cancer patients with or without surgery. Although applying of ADT improves cancer-specific mortality, decline in testosterone leads to a number of side effects, including loss of LBM and increase in fat mass. The aim of this study is to examine the prevalence of sarcopenia and the effect of ADT on development of sarcopenia in prostate cancer patients.

#### **Methods**

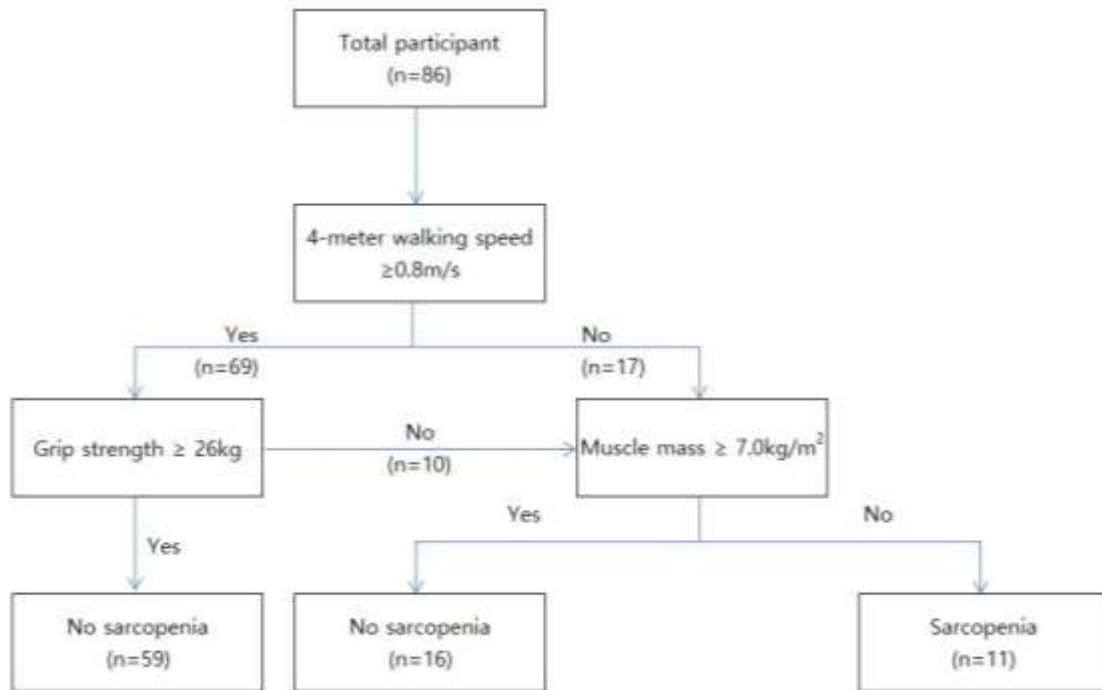
Patients with prostate cancer who had undergone a surgery or ADT had been recruited. Inclusion criteria were 1) Korean male 60-year-old or above, 2) diagnosed with prostate cancer stage I or II (histologically confirmed after undergone radical prostatectomy or had radical radiotherapy) or on current ADT (due to advanced stage of prostate cancer or recurrence of cancer after radical therapy), 3) written informed consent. Exclusion criteria were 1) having treatment within a recent month due to active malignant disease, 2) having bone pain due to bone metastasis or having risk of pathologic fracture, 3) inability to perform 2-minute-walk test, 4) received total knee replacement arthroplasty or total hip replacement arthroplasty, 5) inappropriateness to participate in exercise due to other reasons based on physician's judgement. The sarcopenia was evaluated by using the Asian Working Group for Sarcopenia criteria.

#### **Results**

A total of 86 patients were evaluated. The prevalence of sarcopenia was 12.8% in prostate cancer patients. In subgroup analysis, 6 out of 29 patients (20.7%) in ADT group and 5 out of 57 patients (8.8%) in non ADT group had sarcopenia. The non ADT group showed higher grip strength ( $p=0.009$ ), skeletal muscle mass index ( $p=0.019$ ), 2-minute walking distance ( $p=0.019$ ), and 1 repetition maximum in lower extremity ( $p=0.016$ ).

#### **Conclusion**

The results suggest that sarcopenia is more prevalent in prostate cancer patients than in general population. ADT has tendency to have a provocative effect on development of sarcopenia. However further study is needed to confirmed the relationshi



Application of the Asian Working Group for Sarcopenia algorithm for the study participants