

INTRODUCTION

- Gait speed is a component of many frailty measures
- Frailty can predict functional decline
- Functional decline is associated with osteoporosis
- Little is known about gait speed's association with osteoporosis
- Improving this knowledge gap may help target interventions to improve outcomes in osteoporotic patients

AIM

- To determine the association between gait speed and osteoporosis in older patients

METHODS

- This was a cross-sectional study in adults 60 years and older, seen at a Center for Healthy Aging in 2019-2020
- Gait speed was measured using a timed 6-meter walk test; longer time indicates a slower gait
- Grip strength (used as a surrogate for physical function) was measured with a hand-held dynamometer
- Patient characteristics were gathered from their EMR's
- Osteoporosis was diagnosed with T-scores of negative 2.5 or less
- A linear regression analysis determined associations between gait speed and osteoporosis, adjusting for patient characteristics

RESULTS

Figure 1: Characteristics of Study Subjects

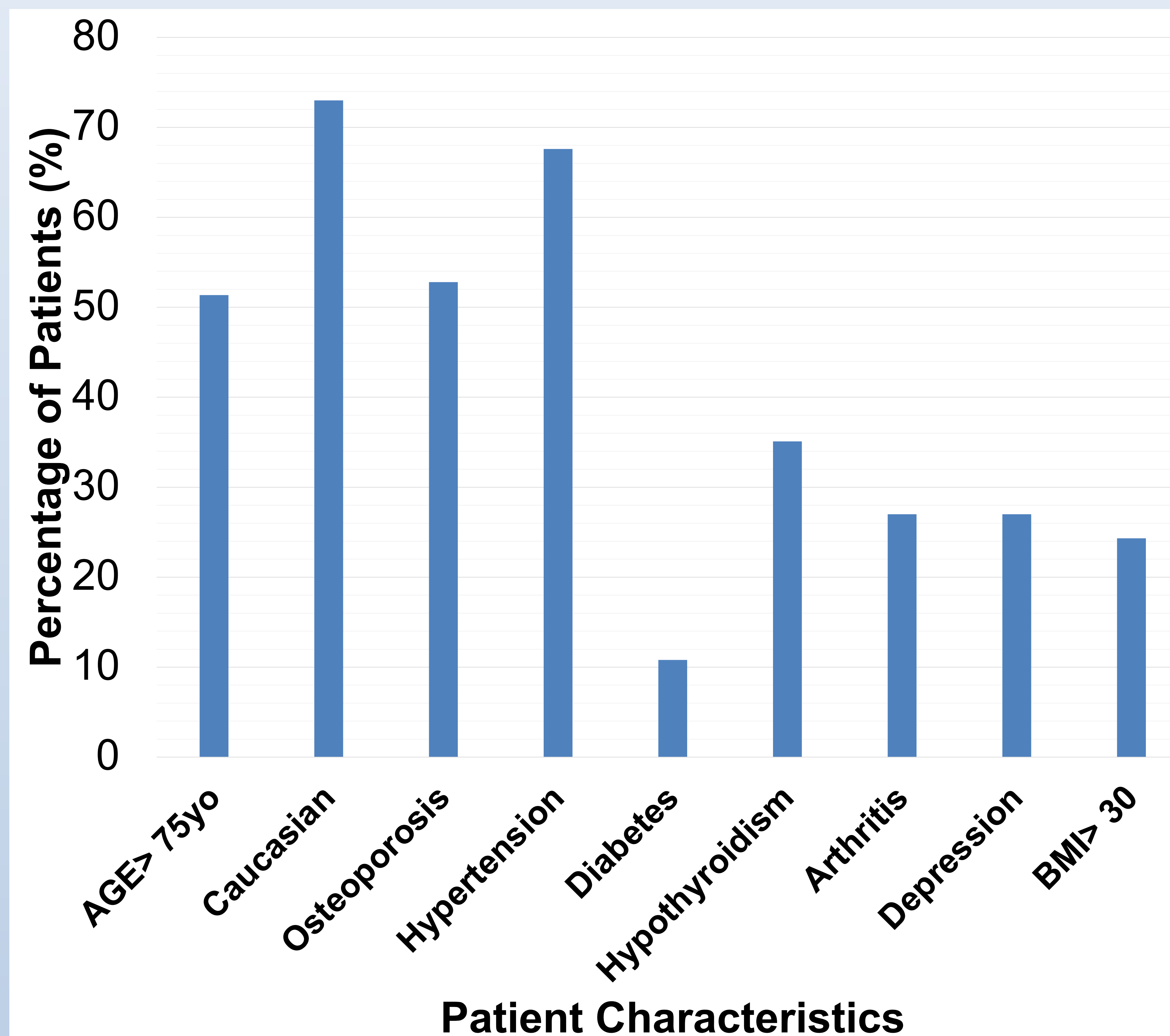


Table 1: Statistically Significant Factors Associated with Gait Speed

Covariate	Beta coefficient	P-value	95% confidence interval
Age	.24	0.023	.04 - .44
Osteoporosis	5.6	0.002	2.27 - 9.02
Depression	6.2	0.002	2.47 - 9.91
BMI	.42	0.013	.10 - .74

RESULTS(CONTINUED)

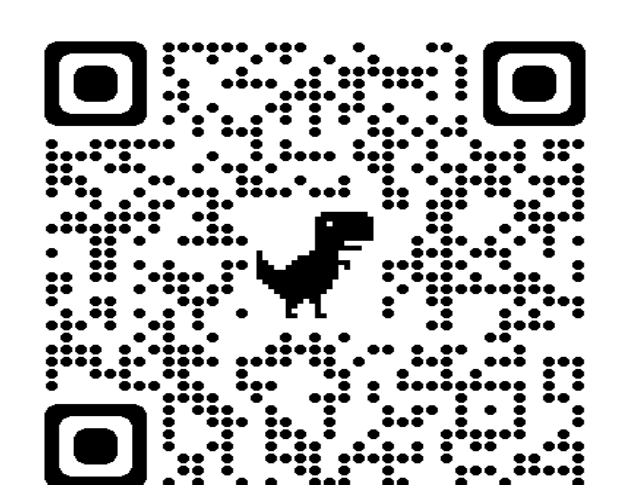
- 37 patients were evaluated for gait speed; 35 (94.6%) were female
- Mean age of participants was 77.0 (± 10) years
- Mean gait speed was 13.04 (± 7.3) seconds
- Mean grip strength was 43.10 (± 17.8) pounds
- Mean BMI was 25.9
- *Figure 1* shows the percentage of patients with their respective characteristics
- Slower gait speed was found to be associated with (*Table 1*):
 - Osteoporosis
 - Depression
 - Advanced Age
 - BMI

CONCLUSIONS

- Slow gait speed and osteoporosis may reflect a depletion of physiological reserves in aging
- Depression could be due in part to the loss of physical function in the older adult
- Using gait speed as an indicator for osteoporosis could lead to faster prevention and better patient outcomes

REFERENCES & ACKNOWLEDGEMENTS

References:
Please see QR code for labeled references



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