INTRODUCTION

Vertebral osteoporosis subjects have an increased risk of peripheral fractures, particularly if they are recurrent fallers. Identification of those at risk of falls is clinically important so that intervention can be appropriately targeted. The aim of this prospective study was to identify simple clinical tests that can be performed in an outpatient setting, which are associated with recurrent fallers.

METHODS

Women with at least one vertebral fracture (confirmed by >25% reduction in vertebral height on lateral radiological imaging) consecutively referred to the bone clinic were studied prospectively. Recurrent fallers were defined as those women who fell at least twice in the year of follow-up. The same clinician performed the following tests at baseline and 12 months later in a standardised manner: Geriatric Depression Score (GDS), Abbreviated Mental Test Score (AMTS), postural sway, ability to rise from a chair with the arms folded, “get up and go test”, tandem walk, time to walk 10 metres, number of steps to turn 180 degrees, leg extensor power and blood pressure drop on standing. Telephone interviews were conducted at intervals to record fall episodes. Demographic details including fall history in the preceding year, age, weight and height were recorded.

RESULTS

104 women, mean age 78±7 years, range 63–91 years were studied of which 86 (82.7%) completed follow-up. 18 of 86 (20.9%) reported 2 or more falls during follow-up. Logistic regression analysis showed that a history of recurrent falls in the preceding year (r = 0.30, P = 0.002), the get up and go test (r = 0.27, P = 0.035), the number of steps to turn around (r = 0.23, P = 0.011), timed 10 m walk (r = 0.2, P = 0.019), postural sway (r = 0.15, P = 0.035) and the AMTS (r = -1.16, P = 0.037) were significantly associated with recurrent falls. The get up and go test and a history of recurrent falls in the preceding year remained significantly associated with recurrent falls in multivariate analysis.

CONCLUSION

In conclusion, the “Get up and go test” in combination with a history of recurrent falling may prove useful as simple clinical predictors of recurrent falling amongst elderly women with vertebral osteoporosis.