Risk of Recurrent Falls after Indoor and Outdoor Falls in the Elderly

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Background

Falls are the most common and serious health problems of the elderly. The primary goal of the study is to determine whether risk for recurrent indoor and outdoor falls differ by type of previous falls and by gender.

Method

We analyzed data on falls collected in the MOBILIZE Boston prospective cohort study of community-dwelling women and men aged 65 years or older. The participants were followed for up to 4.3 years (median=2.3y). Logistic regression models, clustered by participant, were performed to estimate the probability of a subsequent indoor or outdoor fall after any fall, indoor fall, and outdoor fall. Natural log transformed time since the most recent any fall, time since the most recent indoor fall, and time since the most recent outdoor fall were used to predict probabilities of a subsequent fall of each type.

Result

Among 502 participants who reported at least one fall during the follow-up, 330 had at least one reccurent fall during the follow-up period. Men and women differed in their tendencies to fall recurrently as well as in their response to an outdoor fall. Median time to the recurrent any fall since the most recent any fall was 9 weeks (IQR=22) for men and 17 weeks (IQR=30) for women [p= <0.001]. After an outdoor fall, women displayed no change in their risk of an indoor fall, but men had an immediately higher risk for an indoor fall [p=0.003]

Conclusion

Falls, especially outdoor falls, may have different implications for the subsequent fall risks of men vs. women. Further study should examine whether outdoor falls may be an indicator of robustness for elderly women but for frailty in elderly men.

Word count: 275 (max 300)

Keyword: Indoor fall, outdoor fall, recurrent fall

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