High Efficacy for Hip Protectors in the Prevention of Hip Fractures Among Elderly People With Dementia

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Objective

To evaluate the efficacy of hip protectors (HP) in preventing hip fractures (HF) in patients with dementia.

Design

A case-control study.

Setting

Four specialized dementia units.

Participants

206 physically independent patients with dementia.

Interventions

Beginning in January 2004, following the recommendation of the Israeli Ministry of Health, we recommended the use of HP (Hip Saver-nursing home type) to each family/guardian of all patients in these departments.

Measurements

The rate of falls and HF per falls in patients with and without HP.

Results

We achieved patient compliance of 70% to 80% for wearing the HP 24 hours a day; 106 patients were permanently wearing HP for a total period of 1905 months. Of those, subgroup B of 63 patients had been monitored prior to January 2004, before HP were introduced. One
hundred patients of the same departments have never used HP; together with the months of follow-up before January 2004 in subgroup B, the follow-up period in patients not wearing HP, reached a total of 3136 months. There was no statistical difference between patients with/without HP regarding age, gender, comorbidities, routine laboratory findings, and medications. The rate of falls was not significantly different in patients with and without HP. However, there was a significant difference in the rate of hip fractures (HF): in patients not wearing HP there were 323 falls resulting in 14 HF, and in patients wearing HP, 260 falls but only 2 HF (4.3% versus 0.8%, respectively, \( P = .007 \), chi-square test, 95% confidence interval 1.3–24.6, NNT = 28).

Conclusions

When appropriately introduced and used, hip protectors have high efficacy in preventing hip fractures in long-term care patients with dementia. The medical, social, and economic beneficial outcomes are substantial.

**Keywords:** Hip protectors, falls, hip fractures, dementia specialized units

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