Older patients have lower risk of hip fracture after cataract surgery

31 July 2012

Medicare patients 65 years and older who underwent cataract surgery had a lower odds of hip fracture 1 year after the procedure when compared with patients with cataract who did not have cataract surgery, according to a study in the August 1 issue of JAMA.

Visual impairment has been found to be strongly associated with an increased risk of fractures, a significant cause of illness and death in the elderly population. "Specifically, vision plays an important role in providing a reference frame for postural balance and stability, and cataract-induced changes in vision have been found to be associated with postural instability," according to background information in the article.

"Furthermore, cataracts have been found to be the most common cause of fracture-related visual impairment, with untreated cataract causing up to 49 percent of visual impairment in patients with femoral neck fractures related to decreased vision." Despite the association of poor vision and cataracts with increased fall and fracture risk, only a limited number of studies have examined the influence of cataract surgery on fall incidence in visually impaired adults.

Victoria L. Tseng, M.D., of the Warren Alpert Medical School of Brown University, Providence, R.I., and colleagues examined the association between cataract surgery and fracture incidence at 1-year. The study included a 5 percent random sample of Medicare Part B beneficiaries with cataract who received and did not receive cataract surgery from 2002 through 2009. Analyses were adjusted for various factors.

There were 1,113,640 Medicare beneficiaries 65 years and older with a diagnosis of cataract between 2002 and 2009 in the 5 percent random sample. Of these patients, the majority were female (60 percent) and white (88 percent). Of patients with cataract, 410,809 (36.9 percent) underwent cataract surgery during the study period. During this period, the overall 1-year fracture incidence was 1.3 percent (n = 13,976) for hip fractures. Analysis of the data indicated that cataract surgery was associated with a 16 percent decrease in the adjusted odds of hip fracture 1 year after the procedure. "In patients with severe cataract, the association between cataract surgery and lower odds of hip fracture was even stronger, with a 23 percent reduction in the adjusted odds of hip fracture in the cataract surgery group compared with the cataract diagnosis group," the authors write.

Osteoporosis was the most common fracture-related comorbidity (co-existing illness) (12.1 percent). The most common ocular comorbidity was glaucoma (19.1 percent).

"Cataract surgery may be associated with lower odds of subsequent fracture in patients aged 65 years and older in the U.S. Medicare population. Future prospective studies using standardized registries of patients with cataracts will help further elucidate the association between cataract surgery and fracture risk. Cataract surgery has already been demonstrated to be a cost-effective intervention for visual improvement, with an estimated cost per quality-adjusted life-year gained for cataract surgery in the first eye of $2,023 in the United States and $2,727 in the second eye. The results in this study suggest the need for further investigation of the additional potential benefit of cataract surgery as a cost-effective intervention to decrease the incidence of fractures in the elderly," the researchers conclude.


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