The Effect of Cataract Surgery on Postural Control

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Purpose
Falls are a significant cause of morbidity in the elderly. Since decreased vision is known to be a significant risk factor for falling in this age group, we sought to examine the effect of the removal of cataract, a major cause for visual handicap, on postural stability.

Methods
Postural stability was measured in 23 patients who underwent cataract surgery before and 1-4 months after surgery. Postural stability indices included Stability effect, Fourier Spectrum of Postural Sway, Synchronizations and a Falling Index based on these measurements that was previously shown to predict the risk of falling.

Results
Visual acuity in the operated eye significantly improved in all patients following surgery (P<0.01), and did not change in the fellow eye. Stability improved in most patients (19/23) and Fourier Spectrum of Postural Sway improved in the high frequency bands (above 0.5 Hz) while viewing with the operated eye, but not when viewing with the non-operated eye (P<0.05). By Falling index values, before surgery 12/23 patients were at high risk of falling, and only 6 were at low risk. After surgery 16/23 were at low risk and only 3 remained at high risk (chi square test p=0.008).

Conclusions
Cataract surgery significantly improves postural stability. Considering the high cost of treating fall-related injuries in the elderly, this may imply that cataract surgery is effective in this regard.

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