

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.