

Ophthalmology *Update*

A professional courtesy of Lansing Ophthalmology

Cataract Surgery Associated with Lower Mortality Risk Among Older Patients

Older patients whose visual impairment (VI) was improved through cataract surgery have significantly better long-term survival rates compared with patients who did not have the surgery, according to the results of a recent study from Fong et al from the University of Sydney, Australia (Ophthalmology 2013). The study results confirmed the findings of earlier studies that also noted a link between VI and increased mortality among an older population.

"In light of the consistent evidence showing that older persons with VI are likely to have greater mortality than their age peers without VI, we aimed to address the critical question of whether cataract surgery to correct VI is associated with improved survival among older persons with VI," the study authors wrote.

Using data from the Blue Mountains Eye Study (BMES), the authors looked at 354 patients 49 years of age or older who enrolled in the original study and who had VI and cataract, comparing the mortality rates among those who had surgery to correct cataracts and those who did not undergo surgery. Of these 354 baseline participants, 154 survived until the study's 5-year follow-up examinations (BMES II) and 87 survived until the 10-year follow-up examinations (BMES III).

After accounting for known cataract and mortality risk factors, as well as medication usage, body mass index, and other general health and frailty indicators, the authors found that long-term mortality risk was decreased by 40% among patients who had surgical correction of VI due to cataract

compared with patients who did not have surgery and remained visually impaired. The researchers noted that their findings strongly support many previous reports linking VI with poor survival.

"If confirmed, this has an important message to ophthalmologists that correcting VI in their daily practice likely results in better outcomes for patients beyond the eye and vision," the authors concluded. "Further studies are needed to explore the underlying mechanisms for this effect, if demonstrated in other studies."

Nutritional Supplements Provide Significant Benefit to Dry Eye Patients

A study led by Sheppard et al from Eastern Virginia Medical School (Cornea 2013) indicates that patients suffering from dry eye syndrome (keratoconjunctivitis sicca) may benefit significantly from taking supplements that contain both gamma-linolenic acid (GLA) and omega-3 polyunsaturated fatty acids (PUFAs), which occur naturally in some



vegetable oils and fish oils, respectively. The study's results are consistent with the findings of 2 previous studies that found that long-term supplementation decreased the production of specific inflammatory markers associated with the pathogenesis of chronic dry eye.

The study evaluated 38 postmenopausal patients with moderate-to-severe dry eye and randomized them to receive supplemental GLA plus omega-3 PUFAs or placebo for 6 months, a period selected to allow the supplements time to penetrate the cell membrane phospholipids as well as to assess safety and tolerability of the supplements. Each patient was assessed using the Ocular Surface Disease Index (OSDI), Schirmer test, tear breakup time, conjunctival fluorescein and lissamine green staining, and topographic corneal smoothness indices.

At the end of the 6-month period for each patient, the researchers noted that the OSDI improved in the patients who were taking supplements while becoming significantly lower than among patients in the placebo group. In addition, the surface asymmetry index indicated significantly smoother corneal surfaces among patients who received supplements compared with those who received placebo.

The expression of inflammatory markers also showed significant increases in placebo patients compared with those who received supplements, with HLA-DR intensity increasing by 36% and CDC11c increasing by 34% among placebo patients. Tear production, tear breakup time, and corneal and conjunctival staining were unchanged in both groups by the end of the 6-month period.

“Supplement-treated subjects experienced a significant improvement in dry eye syndrome symptoms and had a significantly smoother corneal surface than the placebo-treated group,” the authors noted.

The results of the study support a recommendation for the use of nutritional supplementation in the treatment of tear dysfunction “to decrease irritation symptoms and prevent exacerbations in ocular surface inflammation and corneal epithelial disease,” they concluded.

Diplopia Among Parkinson Patients

About 14% of Parkinson patients suffer from diplopia, according to a survey conducted by Sauerbier et al from King's College London, United Kingdom, who evaluated the prevalence

of diplopia as well as its link with other nonmotor symptoms in patients who have the disease. Most patients reporting diplopia in the survey said they had not discussed the symptoms with their physicians. An abstract comprising the survey's results was presented at the recent World Congress of Neurology in Vienna, Austria.

Using questionnaires and the Non-Motor Symptoms Scale (NMSS), which provides a grading system for diplopia, the researchers collected data from 257 consecutive patients with Parkinson disease. Patients were asked about diplopia and whether they experienced other disease-related nonmotor symptoms. Using the NMSS, patients reporting diplopia were divided into 3 groups:

- 23 patients were classified as having mild diplopia
- 9 were classified as having moderate diplopia
- 4 were classified as having severe diplopia

The researchers found that while there appeared to be no correlation between diplopia and motor symptoms, significant correlations existed between diplopia and several other nonmotor symptoms including falls, drooling, weight changes, excessive sweating, mood changes such as apathy and paranoia, nocturnal restlessness, daytime sleepiness, and difficulty swallowing. Of all nonmotor symptoms studied, visual hallucinations showed the strongest link with diplopia. The survey found no correlation between diplopia and disease duration, gender or medication use.

While vision disturbances are not uncommon among Parkinson patients, little is known about the prevalence and severity of diplopia in Parkinson patients, and no large population studies have been performed to evaluate the condition in patients who have the disease, the researchers noted in their abstract.

Despite the relatively small population in this study, the researchers tentatively identified 5 subtypes: “fleeting” diplopia that caused words to “move” while a patient was reading; a similar more constant form; diplopia that occurred with motor movement; diplopia linked with hallucinations; and diplopia linked with medication use.

Blepharoptosis Repair Improves Patients' Quality of Life

by Elizabeth A. Bradley, MD.

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Blepharoptosis causes substantial reduction in a patient's quality of life. The limitations resulting from this reduction may affect the patient's perceived general vision, peripheral vision, and ability to drive.

A research team at Mayo Clinic in Rochester, Minnesota, examined the effects of blepharoptosis and its surgical repair on health-related quality of life using 2 validated response measures:

- The 25-item National Eye Institute Visional Functioning Questionnaire (NEI VFQ-25), a vision-specific instrument
- The EuroQol Group's EQ-5D, a generic, health-related quality-of-life instrument

"We found that surgical blepharoptosis repair was associated with statistically and clinically significant improvement in patient quality of life comparable in magnitude to what other investigators have reported for exudative age-related macular degeneration treatment with anti-vascular endothelial growth factor therapy," says Elizabeth A. Bradley, MD, an ophthalmic plastic and reconstructive surgeon in the Department of Ophthalmology.

The team conducted a prospective pre- and post-surgery analysis of 48 adults who underwent blepharoptosis surgery by Dr Bradley between March 2008 and March 2009. The age of the participants ranged from 42 to 87 years, and 32 women and 16 men comprised the study group. Of the participants, 37 had bilateral and 11 had unilateral blepharoptosis repair under local anesthesia with sedation. The time between pre- and post-surgery surveys ranged from 14 to 252 days.

Survey Comparisons

The NEI VFQ-25 uses 25 subscale scores in 11 categories and generates an unweighted composite score that averages all visual activity scores. The EQ-5D assesses 5 domains of health-related quality of life to generate index scores that

correspond to related health states. The team used t tests for paired data to compare both the NEI VFQ-25 subscale scores and composite scores and the EQ-5D index and overall quality-of-life scores.

"Prior studies show that individual subscore changes of 5 or more points indicate clinically significant change," says Dr Bradley. "Clinically significant change for this study was set at an even more conservative 10 or more points. The EQ-5D showed statistically significant change in individual scores for usual activities, with a reduction in deficits reported across all dimensions."

Points to Remember

- In a prospective pre- and post-surgery analysis of 48 adults, surgical blepharoptosis repair was associated with statistically and clinically significant improvement in patient quality of life.
- Clinically significant change for this study was set at a conservative 10 or more points.
- The research team examined the effects of blepharoptosis and its surgical repair on quality of life using both vision-specific and generic health-related instruments.



Before and after photos of a patient who underwent ptosis surgery performed by Charles Rice, M.D. at Lansing Ophthalmology.

2014 Annual Physicians Survey Results Summary

Thank you for your feedback! We are addressing all concerns with appropriate staff members and strive to rectify any issues quickly. A few items to note:

- Just over half of responders said they did not know Lansing Ophthalmology had Referral Coordinator services. Let us provide you with up-to-date materials such as appointment cards, business cards, practice brochures, and referral forms to make referring to Lansing Ophthalmology as easy as possible. Contact Kyrie Elliott, Referral Coordinator, kelliott@loeye.com 517-337-1283 if you need anything or have any questions.
- Over 97% of responders said they were happy with the service and care Lansing Ophthalmology provided their patients. We continue to try to improve our quality and standard of care but if there are ever any questions or problems, please do not hesitate to let us know.

Mark Your Calendar - Upcoming CME Seminars

Lansing Ophthalmology will be hosting a CME seminar on Ocular Emergencies on October 7, 2014 in Howell, MI. Invitations will be mailed out this summer.

Are you submitting referrals to Lansing Ophthalmology through www.loeye.com? It is fast and easy.

The registration process is easy:

1. Go to loeye.com
2. Click on the button which says create an account.
3. Click on the referring doctor registration button at the bottom of the page.
4. Fill out the form
5. Indicate you have read the privacy practices.
6. Click register

To submit a referral:

1. Click the link that says Submit Referral
2. Start by selecting the specialist you would like to refer to and then complete the form.
3. Additional files can be uploaded by clicking the Upload Additional Files button. This could include photos, forms etc.
4. Indicate that you have read the privacy notice.
5. Click Send Patient Referral



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