Health of the older person: Cataract

In North America, the amount of blindness due to cataract, as compared with all eye diseases, is about 5%.1 But cataract is a condition of age and several epidemiological studies have demonstrated the increased incidence of cataract with increasing age.

The National Health and Nutritional Examination Survey (NHANES) studied both genders and all races, sampled from a broad range of communities.2 The Watermen Eye Study included men only from a selected region.3 The Framingham Eye Study included both genders in a small community.4 The Beaver Dam Eye Study (Wisconsin, USA) included both genders in a rural community.5 And, the Blue Mountains Eye Study6 (Australia) age specific rates for 5 year incident cataract surgery in an older community were relatively similar to those reported by the Beaver Dam Eye Study.

Estimated Incidence Cataracts: Watermen Eye Study

<table>
<thead>
<tr>
<th>Age</th>
<th>Cortical Cataract</th>
<th>Nuclear Cataract</th>
</tr>
</thead>
<tbody>
<tr>
<td>30-39</td>
<td>1%</td>
<td>1%</td>
</tr>
<tr>
<td>40-49</td>
<td>3%</td>
<td>2%</td>
</tr>
<tr>
<td>50-59</td>
<td>8%</td>
<td>12%</td>
</tr>
<tr>
<td>60-69</td>
<td>17%</td>
<td>32%</td>
</tr>
<tr>
<td>70-79</td>
<td>32%</td>
<td>51%</td>
</tr>
<tr>
<td>80+</td>
<td>32%</td>
<td>55%</td>
</tr>
</tbody>
</table>

RISK FACTORS

Many risk factors have been postulated for cataract but the evidence has tended to be observational. The following factors have been found to be associated with increased risk:

<table>
<thead>
<tr>
<th>Cataract Type</th>
<th>Associated Risk Factor</th>
<th>Finding</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cortical</td>
<td>Abdominal obesity</td>
<td>Increased risk</td>
</tr>
<tr>
<td></td>
<td>UVb light exposure</td>
<td>Increased risk</td>
</tr>
<tr>
<td>Nuclear</td>
<td>Smoking</td>
<td>Increased risk</td>
</tr>
<tr>
<td>Posterior subcapsular</td>
<td>Systemic corticosteroid use</td>
<td>Increased risk</td>
</tr>
<tr>
<td></td>
<td>Inhaled corticosteroid</td>
<td>Increased risk in patients 49 and older</td>
</tr>
<tr>
<td></td>
<td>Alcohol use</td>
<td>Increased risk</td>
</tr>
</tbody>
</table>

PRIORITY FOR SURGERY

In New Zealand, cataract operations may be done as elective surgery based on level of priority determined by a combination of clinical need and ability to benefit from treatment. The CPAC criteria currently in use are copied over the page together with some indications of priority weighting. The commitment threshold for treatment can range from around 20 points up to 50 points depending on which DHB area you are in. These thresholds can also change over time.

Patients who wait more than 6 months for cataract surgery could experience more negative outcomes during the waiting period than those whose waiting period was less than 6 months. Negative outcomes during the waiting period could include vision loss, an increased rate of falls, and reduced quality of life.14

Community optometrists are able to assess all suspected cataracts using the CPAC tool and can provide a report to the GP if asked.

REFERENCES:
Cataract National Clinical Priority Assessment Criteria CPAC

Best Corrected Distance Visual acuity in operative eye (Measured on standard illuminated 6m or 4m chart)  

- Weighting starts from 6/18

Best Corrected Binocular Distance Visual Acuity  

- Weighting starts from 6/12

Risk of Intra-operative Complications (where delay to surgery may increase risk to optimal outcome)  

- High Risk adds to priority

Presence of Axial Posterior sub-capsular lens opacity  

- Present – axial --- has a weighting

Potential Visual Acuity in the operative eye after surgery  

- Weighting for 6/12 and better VA post surgery

Level of risk to safety of others resulting from cataract related poor vision is considered  

- High risk; Has had an incident where an injury to others has occurred or might have occurred (near miss or driving when unsafe or illegal).

Impact on Life (including effect of difficulty with driving) – considers the following  

- Little or no difficulty with any important activities in all aspects of life
- Some important activities of Personal care & Social interaction are quite difficult but not impossible
- Some important activities in ALL aspects of life are quite difficult but not impossible
- Some important activities of personal safety, responsibility for others, interacting with the world & leisure are impossible
- Some important activities are impossible in all aspects of life

Total score:

References continued


ROAD SAFETY

Cataract surgery not only improves vision and quality of life for older people, but is also apparently a way to reduce the number of car crashes. Australian researcher, Dr. Jonathan Ng studied 27,827 patients who had a cataract removed from one eye between 1997 and 2006. He found cataract surgery reduced the frequency of all crashes by 12.6% after accounting for other potential confounders. While people often have to wait weeks or months to receive surgery after cataract is diagnosed, this study argues that delay significantly impacts not only patients' quality of life, but public safety and property costs.