ANTICOAGULATION AND CATARACT SURGERY

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Background

- Cataract extraction
  - Increasing numbers of patients on anticoagulation

- Perioperative management of anticoagulation
  - Risks of haemorrhage versus thromboembolism

- Common oral anticoagulants
  - Warfarin
    - Monitored via INR levels
  - Dabigatran
    - Not routinely monitored
Background

- **Current literature**
  - Warfarin: no increase in visually significant haemorrhage\(^1\)
  - Limited data on Dabigatran\(^1\)

- **Aim of audit**
  - To assess the effect of Warfarin/Dabigatran on cataract surgery patients

Method

- Retrospective audit of anticoagulated patients aged ≥18 who had phacoemulsification + IOL insertion in 2015 at Christchurch Hospital
- Excluded those who also had another procedure on the same eye
- Information collected
  - Anticoagulant
    - Type
    - Indications
    - Treatment regimen modifications
  - Outcome measures
    - Intraoperative/postoperative haemorrhage
    - Thromboembolic events
- Control group (not on anticoagulants/antiplatelets)
670 patients (714 eyes) underwent phacoemulsification + IOL insertion in 2015 at Christchurch Hospital

64 patients (78 eyes) were excluded

606 patients (636 eyes)

562 patients (590 eyes) were not on anticoagulation

44 patients (46 eyes) were on anticoagulation

Control group of 41 patients (46 eyes)
Results

- 52% male and 48% female in anticoagulated group
- 34/46 (74%) on Warfarin
  - 9/34 also on Aspirin
- 12/46 (26%) on Dabigatran
  - 1/12 also on Aspirin and Clopidogrel

Figure: Indications for anticoagulation

Atrial fibrillation/flutter
Venous thromboembolism
Prosthetic heart valves
Atrial appendage thrombus
>1 indication

Number of patients
Results

- **Type of anaesthesia**
  - Subtenon’s block: 83%
  - Peribulbar block: 11%
  - Eye block (unspecified): 2%
  - Topical anaesthetic + sedation: 2%
  - General anaesthetic: 2%

*Figure: Perioperative management of anticoagulation*
Results

- 1 case of vitreous haemorrhage (preop or postop)
  - Continued Warfarin, preop INR 3.1
  - Background of CRVO and NVG

- Otherwise, the haemorrhages that occurred were minor and not visually significant

<table>
<thead>
<tr>
<th></th>
<th>Subconjunctival haemorrhage</th>
<th>Small retinal/disc haemorrhage</th>
<th>Microhyphaema</th>
<th>Haematoma post subtenon’s block</th>
</tr>
</thead>
<tbody>
<tr>
<td>Warfarin</td>
<td>12%</td>
<td>3%</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Dabigatran</td>
<td>17%</td>
<td>8%</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Controls</td>
<td>7%</td>
<td>2%</td>
<td>2%</td>
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- No thromboembolic events in the 2-week postop period
Patients having cataract surgery should continue their Warfarin/Dabigatran

Provided that the INR is not supratherapeutic in those on Warfarin