### Aetiology

- Usually idiopathic
-Valsalva manoeuvre (e.g. coughing, straining, vomiting) producing rise in central venous pressure
- Traumatic (may be isolated or associated with ruptured globe or retrobulbar haemorrhage – see Clinical Management Guideline on Blunt Trauma)
- Recent eye surgery
- **History is important.** Ask about hypertension, medications, acute or chronic cough, eye rubbing, heavy lifting, recent ocular or head trauma, bleeding or clotting abnormalities and recurrent subconjunctival haemorrhage

### Predisposing factors

- Systemic hypertension
- Bleeding abnormality (leukaemia, clotting disorders)
- Anticoagulant medication (e.g. aspirin, warfarin)
- Conjunctival vascular lesion
- Trauma (including contact lens-related injury)
- Diabetes

### Symptoms

- Mild ache or irritation (no pain)
- May be asymptomatic

### Signs

- Red area on eye, location usually inferior, caused by blood beneath the conjunctiva of which the posterior border can be seen (if cannot be seen, may originate from intra-cranial haemorrhage, in which case immediate emergency referral may save a life)
- Usually unilateral
- No discharge

### Differential diagnosis

- Haemorrhagic conjunctivitis (EHC)
  - viral conjunctivitis (usually small multiple haemorrhages; rare)
  - usually bilateral
- Conjunctival neoplasms (e.g. lymphoma) with secondary haemorrhage
- Kaposi’s sarcoma (red or purple lesions under conjunctiva)

### Management by Optometrist

**Practitioners should recognise their limitations and where necessary seek further advice or refer the patient elsewhere**

<table>
<thead>
<tr>
<th>Non pharmacological</th>
<th>Pharmacological</th>
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<tbody>
<tr>
<td>measure blood pressure (see NICE guidance at: <a href="http://www.nice.org.uk/guidance/cg127/chapter/1-guidance#measuring-blood-pressure">http://www.nice.org.uk/guidance/cg127/chapter/1-guidance#measuring-blood-pressure</a>)</td>
<td>Tear supplement / ocular lubricant if mild ocular irritation is present (GRADE*: Level of evidence=low, Strength of recommendation=strong)</td>
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<tr>
<td>in traumatic cases, refer to Clinical Management Guideline on Blunt Trauma</td>
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<tr>
<td>ensure that posterior border of haemorrhage can be seen, to exclude intra-cranial source e.g. following skull base fracture</td>
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<tr>
<td>If patient has history of recurrent subconjunctival haemorrhages or a history of bleeding or clotting abnormalities, refer to GP. Also refer for checking of international normalized ratio (INR) if patient is on warfarin (particularly if associated with unexplained bruising on the skin)</td>
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<tr>
<td>reassure patient</td>
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<td>condition usually clears within 5-10 days</td>
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<td>cold compress may reduce discomfort</td>
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<tr>
<td>Advise patient to return/seek further help if problem does not resolve or if it recurs (GRADE*: Level of evidence=low, Strength of recommendation=strong)</td>
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</table>
Sub-conjunctival haemorrhage

**Management Category**

| B3: management to resolution |
| Refer to GP if suspicion of hypertension or bleeding disorder, or if condition is recurrent |

**Possible management by Ophthalmologist**

| (Not normally referred) |
| Investigate for underlying cause of subconjunctival haemorrhage |
| Cauterise bleeding vessel if found |

**Evidence base**

*GRADE: Grading of Recommendations Assessment, Development and Evaluation (see [http://gradeworkinggroup.org/toolbox/index.htm](http://gradeworkinggroup.org/toolbox/index.htm))

**Sources of evidence**


**LAY SUMMARY**

Sub-conjunctival haemorrhage (S-CH) is a common condition which is usually unimportant but which only very occasionally indicates a serious medical condition. It occurs when a small amount of bleeding takes place beneath the conjunctiva (the membrane overlying the white of the eye) and is similar to a bruise elsewhere. It appears bright red because the conjunctiva is transparent. This may happen spontaneously (that is, with no discernable cause) or as the result of minor trauma, for example when a contact lens is mishandled. It can also indicate raised blood pressure or a bleeding abnormality. S-CH occurs more often in people taking blood thinning medications or aspirin, and in diabetics. The condition is often alarming because of its dramatic appearance but there is usually only mild discomfort and the haemorrhage usually disappears in 5-10 days without treatment. It is usual to check the blood pressure of people with S-CH and to investigate the problem if it recurs.