

## Subconjunctival Haemorrhage (SCH)

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### Background

SCH is a painless process where bleeding from the conjunctival or episcleral blood vessels lead to a haemorrhage in the subconjunctival space. It is generally unilateral and generally no treatment is indicated. The great majority of cases are due to trauma, or less commonly ocular surface inflammation. A "spontaneous" SCH is extremely rare and does not occur in healthy children.

- SCH can be seen in abused in children and therefore inflicted injury must be one of the differentials.
- SCH can be secondary to direct trauma to the eye or secondary to an increase in intrathoracic pressure which can include suffocation/asphyxia.

Differentials for SCH include:

Traumatic – asphyxia, blunt or penetrating, inflicted or birth trauma.

Infective

Valsalva/severe vomiting

Oncological – neuroblastoma, leukaemia, rhabdomyosarcoma

Haematological – Haemophilia, Thrombocytopaenia, Bleeding disorders or HLH.

- SCH after normal vaginal delivery is a common occurrence, this would normally resolve within 1-2 weeks.
- The prevalence of SCH in inflicted injury is unknown.
- Consider those not independently mobile as a high risk group as for bruising.
- A majority of the described cases within literature do have other injuries.

The child may need assessment at RACH (see below)

#### **The paediatrician's responsibility is to:**

- take detailed history of birth, medical details, family bleeding history and social history
- Ensure CPIS check completed
- perform thorough top to toe examination including all skin surfaces esp. scalp, orifice, ano-genital
- complete a body map
- Consider differential diagnosis and order further investigation as warranted
- Perform a blood pressure and OFC

#### **Further injuries found or concerns from history:**

Child may require admission and further investigation.

Liaison with social care and completion of investigations for suspected physical abuse.

**Isolated SCH bilateral** – If bilateral and associated with petechiae consider asphyxia and complete investigations for suspected physical abuse.

**Isolated SCH unilateral** - This is rare however SCH can occur without other clinical signs of physical abuse. In the under <1yr old, inflicted **injury must be considered**. Please refer to features table on next page.

Features table:

	Green	Amber	Red
<b>Age of child</b>	<2weeks	>2 weeks	
<b>Safeguarding concerns</b>	None	Previous concerns. Child in need plan. Other children within the household on child protection plan.	On a child protection plan.
<b>Familial concerns</b>	None	None	Domestic abuse Significant substance abuse Significant mental health issues
<b>Other injuries</b>	None	None	In the under 6m: Bruising Scalp injuries Intraoral injuries Any other suspicious injuries Over 6 months: Injuries suspicious for inflicted injury
<b>Illness</b>	Otherwise well	Interaction between parent child not considered normal	Child unwell Concerning behaviour
<b>Previous SCH</b>	Documented in NIPE or health check. Seen on photograph.		

**Red features** – Full assessment as above with strong consideration of admission and investigation. Follow bruise pathway where appropriate. Ophthalmology review advised.

**Amber features** – Full assessment with consideration of admission and investigation. Ophthalmology review advised.

**Green features** – Document and discharge.

If child needs admission, please refer to child safeguarding guidance on microguide

14 days is the usual timespan for resolution of SCH however some haemorrhages may take longer to resolve and any child <14 days with concerns red features still requires careful assessment.

**References**

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2. Li LH, Li N, Zhao JY, et al. Findings of perinatal ocular examination performed on 3573, healthy full-term newborns. *Br J Ophthalmol*. 2013;97(5):588–591
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4. Parikh, Alomi O. et al "Prevalence and Causes of Subconjunctival Hemorrhage in Children." *Pediatrics* 146.1 MeetingAbstract (2020): 1-2. Web. 06 Jan. 2021.