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Subconjunctival hemorrhage—Something more you should know

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Subconjunctival hemorrhage is a common disorder that can occur in all subspecialty areas. An area of sudden and painless bright red blood appears, often during sleep (Berson, 1993), under the clear conjunctiva when a subconjunctival blood vessel breaks.

No matter which subspecialty you work in, or even if none at all, there will be phone calls from patients with red eyes. There are about as many different causes for red eyes as there are diseases and disorders. Some require immediate treatment, such as an acute attack of angle closure glaucoma or corneal transplant rejection, whereas others primarily need only calm reassurance—as in the case of the subconjunctival hemorrhage.

Common disorder
Subconjunctival hemorrhage is a common disorder that can occur in all subspecialty areas. An area of sudden and painless bright red blood appears, often during sleep (Berson, 1993), under the clear conjunctiva when a subconjunctival blood vessel breaks. Outright bleeding, however, is not apparent (Boyd-Monk & Steinmetz, 1987). As a skilled ophthalmic nurse it is important to accurately assess the condition and implement the nursing considerations necessary to guide these patients to appropriate treatment. The subconjunctival hemorrhage could be the sign of a more serious underlying condition which shouldn't be over looked or ignored.

The history is the most important phase in the evaluation process (Judge, 1992). When assessing what type of “red eye” you are dealing with over the phone, be certain to include the following questions to obtain the most accurate description.

- Can you describe the redness?
- Is it unilateral?
- Is it localized to one specific area?
- Does it look like the eye is “bleeding” in one spot?
- Is there any pain, itching, or discharge?

Collect a history
- When did the redness begin?
- Is there associated photophobia?
- Is any other member of the family affected?
- Has the eye been subject to any trauma, heavy lifting, foreign body, or recent surgery?
- Is there a previous history of subconjunctival hemorrhage?

Obtain general health information
- What are the current medications the patient is taking?
- Is there a history of hypertension, bleeding or clotting disorders, or diabetes?
- Is there a systemic infection such as the flu or a cold currently underway?
- Has there been any coughing, straining, vomiting, sneezing?

Potential causes
The ophthalmic nurse should be aware of the many potential causes for the subconjunctival hemorrhage. First of all, determine if there has been any recent surgery or trauma to the eye. A blow to the eye or manipulation of the conjunctival blood vessels during surgery can make them susceptible to breakage. Exclude the possibility of a retrobulbar hemorrhage after trauma or an open globe. A subconjunctival hemorrhage could be the only outward sign present with an intraocular foreign body.

Secondly, take into account acute febrile systemic infections. Sudden severe venous congestion to the head—as in coughing, sneezing, vomiting, straining, or epileptic seizure (Roy, 1989) may cause conjunctival blood vessels to break. Sometimes, in a mild
folicular or acute pneumococcal conjunctivitis, subconjunctival hemorrhage and preauricular adenopathy (Arffa, 1991) may occur from the local inflammatory process or from excessive itching or rubbing of the eye (Pitts, Jardine, & Barker, 1992).

Thirdly, rule out the possibility of systemic hypertension. An initial sign of systemic disease may first present itself in this form to the ophthalmologist (Fukuyama, Hayasaka, Yamada, & Setogawa, 1990). Studies have shown a high incidence of hypertension to be a common etiologic factor for subconjunctival hemorrhage (Pitts, et al., 1992). Other causes for the walls of the blood vessels to become fragile include age, arteriosclerosis, diabetes, and nephritis (Roy, 1989).

Abnormalities or pathologies of the blood, referred to as dyscrasias, may be a more severe underlying cause of the subconjunctival hemorrhage. Such conditions are thrombocytopenia, anemia, leukemia, splenic disorders, septicemia, or secondary to drugs. Subconjunctival hemorrhage has been found to be an associated side effect with the use of nearly 250 different medications (Roy, 1989).

Other causes may be gravity inversion, spontaneous rupture, conjunctival dysplasia—which could require cautery—or the bleeding vessels or biopsies to rule out neoplasms such as lymphoma, or Kaposi's sarcoma, in which case the patient should be evaluated for AIDS (Friedberg & Rapuano, 1990). But remember, the most common reason for the subconjunctival hemorrhage is: without apparent cause (Roy, 1989).

Fortunately, the subconjunctival hemorrhage usually spontaneously clears within one to two weeks (Friedberg & Rapuano, 1990). No treatment is required, and unless the condition is recurrent, no evaluation is necessary (Berson, 1993).

**Nursing considerations and interventions:**

1. Obtain a blood pressure.
2. Document complete listing of medication usage. The effects of some medications can last days or even weeks after they have been discontinued.
3. If appropriate, suggest medication to halt coughing or sneezing.
4. If the condition is recurrent, acquire blood for lab tests, including: CBC, PT/PTT, Bleeding Time, and Platelet Count.
5. Consult general medical physician to correct blood abnormality, hypertension, or adverse drug side effect.

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**References**


