Hemangioma

What is a hemangioma?

A hemangioma is a non-cancerous (benign) tumor caused by abnormal growth of blood vessels. Hemangiomas can occur anywhere on the body, but are most commonly found on the face and neck. While they can be present at birth, hemangiomas more often appear during the first six months of life.

There are two types of hemangiomas:

Capillary hemangiomas are in the outer layers of the skin. They are often called "strawberry birthmarks."

Cavernous hemangiomas are in the deeper layers of the skin or around the eye.

Capillary hemangiomas can be on the eyelids, the surface of the eye, or in the eye socket. When that happens, the hemangioma may interfere with the normal development of the eye. It can also lead to vision problems, including amblyopia and glaucoma.

Hemangiomas gradually disappear over time. Half of hemangiomas disappear by age five, and 90% (9 out of 10) are gone by age nine.

What causes hemangiomas?

The exact cause of capillary hemangiomas is unknown. Some research suggests that certain proteins in the placenta during pregnancy may be involved.

Who is at risk for hemangiomas?

Hemangiomas are more often found in Caucasian babies.

Female babies are three times more likely to develop hemangiomas than male babies. Premature babies are also at greater risk for hemangiomas.

What are symptoms of hemangiomas?

Capillary hemangiomas usually appear in the first six months. They can be red to reddish-purple, raised lesions on the skin. They can also be large, raised lesions with visible blood vessels. Typically, parents notice a spot on a baby's skin that grows in size and color.

Hemangiomas that involve the eye can cause serious eye problems. If large and unchecked, they can lead to poor vision development from amblyopia or "lazy eye." If the hemangioma involves the eye itself, it can cause glaucoma. Hemangiomas in the eye socket can press on the optic nerve. This can cause optic nerve atrophy and lead to vision loss.

How are hemangiomas diagnosed and treated?

Your ophthalmologist can diagnose hemangiomas based upon their appearance. More testing is usually not necessary.

Treatment of the hemangioma depends upon the location, size and severity of the lesion. It also depends on whether it is causing vision problems. Not all hemangiomas need treatment. But hemangiomas near the eye should be watched to make sure they do not cause vision problems.

If a hemangioma is causing vision problems, several treatment options are available.

Steroid medications. Steroid medications are often used to treat hemangiomas. The steroids work by causing the blood vessels of the hemangioma to shrink. The steroids can be given by mouth, injected into the tumor or applied to its surface.

Potential side effects of steroids include:

- delayed physical growth
- cataracts
- glaucoma

These side effects are unusual with close monitoring.

Propranolol. Propranolol is a medication that has fewer side effects than steroids. Propranolol can be taken by mouth or can be applied to the lesion if the hemangioma is small and thin.

Propranolol can affect heart rate and blood pressure. Careful monitoring at the beginning of treatment is sometimes needed. This may include a brief admission to the hospital.

Laser treatment. A laser can sometimes stop growth, diminish size or lighten the color of superficial hemangiomas.

Surgery. Surgery is generally reserved for small, well-defined hemangiomas that are under the skin surface. Most hemangiomas in the eye socket do not need intervention. But if they grow to the point that they are pressing on the optic nerve or displacing the eye, then treatment is needed.

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Summary

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Hemangiomas gradually disappear over time. Half of hemangiomas disappear by age five, and 90% (9 out of 10) are gone by age nine.

Not all hemangiomas need treatment. But hemangiomas near the eye should be watched to make sure they do not cause vision problems.

If a hemangioma is causing vision problems, several treatment options are available. These include steroid medications, propranolol, laser treatment and surgery.

If you have any questions about your eyes or your vision, speak with your ophthalmologist. He or she is committed to protecting your sight.

Get more information about hemangioma from EyeSmart—provided by the American Academy of Ophthalmology—at **aao.org/hemangioma-link**.

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