



PROPRANOLOL FOR INFANTILE HAEMANGIOMA

What is it?

Propranolol is a medication that has been used for decades in the treatment of blood pressure, fast heart rate, and a variety of other medical conditions. It has been used for the treatment of haemangioma of infancy since 2008.

How can it help with haemangiomas?

Infantile haemangiomas consist of clusters of small and immature blood vessels, with strawberry-like appearance. For the first several months of life, haemangiomas may grow at a fast rate, before slowing down at around 6-18 months of age.

In most cases, haemangiomas slowly shrink over time and do not require treatment. Some babies with haemangiomas may benefit from treatment with propranolol. These include haemangiomas which interfere with breathing, feeding, vision, hearing, or where the top layer of the skin has come off (ulceration).

Propranolol is thought to narrow existing vessels in the haemangioma and reduce blood flow through them. Propranolol inhibits growth of new blood vessels, allowing the colour to fade and become softer.

How is it given?

Propranolol is usually given as a syrup two times a day. Depending on the age of the child and their medical history it may be started under observation at a hospital or at home. The dose often changes as the child puts on weight and will be regularly monitored by the treating doctor. Most children have a treatment course lasting from 12 – 18 months.

The frequency of dosage should be guided by your child's doctor, but is usually given twice a day. Doses must be spaced at least 6 hours apart.

If a dose is missed, never try to make up for the missed doses by doubling the dose or giving more; simply omit the missed dose and give the next scheduled dose as normal.

If your child is sick, has a fever or is not tolerating milk, the propranolol dose should be skipped. Your child's doctors should be contacted for further advice.

What are the potential side effects?

Propranolol is a safe and well-tolerated medication with few side effects. It has been used for over a decade for infants with infantile haemangioma.

However, rare side effects include slowed heart rate, lowered blood pressure, lowered blood sugar, narrowing of the airways, coughing or wheezing, reduced blood flow to hands and feet, disturbed sleep, weakness, tiredness, and constipation.

If you have concerns regarding these side effects, please discuss with your doctor.

How does it compare to alternative medications?

Previously, oral steroids were the first line treatment for haemangiomas. However, use of steroids is associated with multiple side-effects and is thus no longer recommended as first-line. Propranolol is a safer and more effective treatment option.

There is also a similar medication called timolol which may be applied as a gel or ointment to infantile haemangiomas and may be an alternative treatment option in some cases.

There is a similar medication to propranolol called atenolol. This medication is also taken as a syrup and may be an alternative treatment option in some cases.

Vaccination

There is no interaction with vaccines, so vaccination can proceed as normal.

Prognosis

Propranolol is highly effective in helping to shrink down haemangiomas. Some skin changes may be left behind. This may be in the form of prominent blood vessels or fatty scars. Laser therapy and surgery are potential treatment options for these once the child is older.

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