Chronic Neutropenia

What is neutropenia?

Neutropenia is a blood disorder caused by an abnormally low number of neutrophils. Neutrophils are white blood cells that are very important in fighting mainly bacterial infections. Low number of neutrophils leads to a higher risk of infection.

It is not always known what causes neutropenia. Some people are born with it (congenital neutropenia), or it may occur after having a virus or as a result of taking some medication. Sometimes it is an autoimmune response whereby the body thinks its own neutrophils are foreign and seeks to destroy them.

When neutropenia lasts for only a short time it is called acute neutropenia. When a child has had a low neutrophil count for a longer period, such as 3 months this is called chronic neutropenia. There are different types of chronic neutropenia including congenital, cyclical, idiopathic and autoimmune. Your doctor will discuss information that is relevant to your child.

What are the signs and symptoms?

- Frequent and sometimes unusual infections
- Fever - a temperature higher than 38 degrees is often a sign of infection. The lower your child’s neutrophil count is, the greater the risk. Severe neutropenia needs prompt medical attention as children can quickly develop a life threatening infection.
- Tiredness – due to being unwell
- Blister like spots without any pus
- Enlarged spleen
- Mouth ulcers

It is quite common for children to not show any signs and symptoms.
What tests will my child have?

**CBP**- a complete blood test is required to check the number of neutrophils circulating in the blood. A low number of neutrophils indicate neutropenia. Your doctor will need to take blood tests often to check your child’s white blood cell count. The blood for this test can be taken using a finger prick.

**Bone Marrow Biopsy** – a sample of bone marrow is taken and looked at under the microscope to help determine the cause of neutropenia. See section 4 of your folder for further information.

How is Chronic Neutropenia treated?

- **G-CSF** (Granulocyte colony stimulating factor) may be used. This stimulates the release of neutrophils into the bloodstream. G-CSF is given by an injection just under the skin using a very small needle. This medication can be continued for many days in a row, so your child may wish to have an insufion put in. An insufion is a small plastic tunnel that is placed just under the surface of the skin and can stay in for seven days. This means your child will not have to have their skin pricked each day. G-CSF treatment may cause flu-like symptoms ie muscular pain, temperature, and general malaise.

- **Oral antibiotics** Many infections are minor, such as ear, throat and mouth infections. These can often be treated at home with oral antibiotics. Sometimes dangerous and even life-threatening infections can occur. Your child will then be watched closely in hospital and given strong antibiotics into their vein to fight the infection.

Some children recover from neutropenia without treatment. Others remain neutropenic but without signs of infection. These children also do not require treatment.
What can I do to help my child?

- Wash hands often and ask people visiting your home to do the same.

- Avoid people that you know who currently have an infection.

- Avoid large groups of people ie shopping centres when you know your child is neutropenic.

- Practice good mouth care to help minimise infection. (Refer to handout on Mouth care).

Contact your local doctor or hospital whenever you are concerned about your child and always if they have a temperature over 38 degrees.

School / Kindy - your child can continue to attend unless advised by your doctor.

Vaccinations – it is advisable to discuss vaccinations with your specialist doctor. For further information please read attached information.

It is important to remember that children with neutropenia can lead normal, active lives.

References and further information:


- ‘What is Neutropenia?’ produced by the Neutropenia Support Association. Internet address; (http://www.neutropenia.ca/about/index.html)

- www.neutropenia.org


Please refer to section 7 “Sources of More Information” or check the parent’s library in McGuiness & McDermott children’s clinic.