

FACTSHEET

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Lipomas and Lipomyelomeningoceles

What is Spinal Cord Lipoma

Spinal cord lipomas are a collection of fat cells that have formed into a lump or mass. They are abnormally located in the lower part of the spinal canal, in or near the spinal cord. A lipoma often presents without any skin or bony abnormalities. The abnormal cells may engulf nerve roots and extend deep within the cord making complete removal difficult or impossible. This is often diagnosed later in life as an unexpected finding on a scan or once symptoms develop.

Lipomas develop during the early weeks of pregnancy and are associated with Spina Bifida. Lipomas grow as the child grows and they can cause tethering of the spinal cord as a person grows. When this causes tension on the spinal cord and leads to loss of function they may require surgical intervention. See the Spinal Cord tethering factsheet for more information.

What is a lipomyelomeningocele?

A lipomyelomeningocele (pronounced lipo-my-elo-men-IN-go-seal) is a large collection of fat cells (fatty mass). It is located in the spinal canal and extends out through the gap or opening in the vertebrae becoming visible under the skin on the child's back. It is associated with Spina Bifida. Similar to the common type of Spina Bifida (myelomeningocele) it also develops in the first month of the pregnancy. From birth it looks like a large soft tissue swelling or lump at the bottom of the lower back or in the buttocks, usually uneven.

The two main problems with it are:

1. Nerves can get stuck in the fatty mass.
2. The mass can cause tethering of the spinal cord with neurological changes or functional loss.

See the Spinal Cord tethering factsheet for more information.

Who gets lipomyelomeningoceles and what are the symptoms?

These lesions are usually clear at birth or become noticeable within the first few months to the first years of life. The soft tissue swelling over the spine in the lower back is covered by skin and usually not painful.

The symptoms are usually:

- Lower limb weakness
- Development of spasticity (muscle spasms and stiffness)
- Foot deformity leading to problems with walking, trips or falls
- Changes in bladder and bowel control or function
- Gradual curving of the back (scoliosis).

How are these lesions diagnosed?

Ultrasound scanning of the spine and lump is usually done first. When a lipomyelomeningocele is suspected magnetic resonance imaging (MRI scan) is used to confirm the diagnosis. An MRI will help the surgeon plan the operation. Plain X-rays will show the gap or opening in the vertebrae in most cases. Sometimes other tests

(such as urodynamic testing by the urologist to check for changes in the bladder function) may be needed.

Symptoms of lipomyelomeningoceles are usually due to tethering of the spinal cord. Especially during growth spurts (due to tension). See the Spinal Cord tethering factsheet for more information.

How are lipomyelomeningoceles treated?

The goal of treatment (surgery) is to prevent further decline of function related to the tethering of the spinal cord. To achieve this, the abnormal attachment of the spinal cord to the other structures (tethering) has to be performed safely (un-tethering). In addition to this the surgeon may also attempt to reduce the bulk of the fatty cells under the skin for cosmetic reasons (de-bulking). This has extra risks involved, such as fatty cells might die (necrosis). This can lead to problems deeper down with infection, leakage of fluids and additional scar tissue being formed. This in itself can cause re-tethering or loss of function.

As a person with a (lipo) myelomeningocele grows, the cord can again come under tension and the surgery might have to be repeated when symptoms recur.

Usually the initial surgery will be done some time in the first year of life when the child can undergo a general anaesthetic safely. This will prevent neurological or functional changes in later life. When symptoms recur the surgery will be done at the time of the diagnosis to prevent further decline and hopefully to have some recovery from functional loss.

Further reading about lipomas and lipomyelomeningoceles in spina bifida:

- The Spina Bifida Association in the United States has several fact sheets about Lipomyelomeningoceles and tethered cord syndrome at www.spinabifidaassociation.org

Remember:

- Always seek medical attention if the symptoms of tethered cord are experienced.