Spina Bifida

Spina bifida (SB) happens when a baby is in the womb. Normally, the developing spinal column starts as an open tube and over time, this tube closes. In SB, the tube does not close all the way during the first month of pregnancy. There are 4 different types of SB.

- Spina Bifida Occulta

This is also called "hidden spina bifida" because there are no physical signs of this. About 15% of healthy people have it and do not know it. Spina bifida occulta does not cause harm. It has no signs. The spinal cord and nerves are fine. People usually find out they have it after having an X-ray of their back.

- Occult Spinal Dysraphism (OSD)

Babies with this have a dimple in their lower back. Because most babies with dimples do not have OSD, tests must be done to make the diagnosis of OSD, if suspected. In OSD, the spinal cord may not grow correctly along with the spinal bones. This can lead to serious problems as a child grows.

- Meningocele

Meningocele causes a sac filled with spinal fluid to be pushed out onto the skin. The sac is usually on the back. There is commonly no nerve damage with this problem. People with a meningocele may have minor disabilities.

- Myelomeningocele (also called meningomyelocele)

This is the most severe form of SB. This causes parts of the spinal cord and nerves to come through the open part of the spine into a sac on the skin at birth. It causes nerve damage and other disabilities. Most children with this problem also have too much spinal fluid around their brains (hydrocephalus). The spinal fluid is unable to drain like it should. The fluid builds up. This causes pressure and swelling.

CAUSES

The causes of SB are not fully known. Having one child with SB does increase the risk of having another child with SB.

SYMPTOMS

- Occult Spinal Dysraphism (OSD)

Babies with this have a dimple in their lower back. There may be birthmarks or hairy patches also. Sometimes a skin tag or lump is present. Symptoms may come with growth. This is because the spinal cord does not grow correctly along with the spinal column. This causes the spinal cord to get stretched, leading to nerve problems. Symptoms in babies may be absent or there may be weakness or deformities of the legs. Older children or adults can have severe low back pain, loss of control of the bladder or bowels, leg weakness and difficulty walking.

- Meningocele

Babies have a sac filled with spinal fluid usually along the back. The nerves are usually not damaged so there usually are no symptoms

- Myelomeningocele

This usually leads to deformities of the joints in the legs. The legs can be paralyzed (unable to move) – partially or completely. Walking may be hard. There may be problems with urine and bowel control. There can be urine or bowel leakage or constipation. Back up of spinal fluid around the brain can cause the head to swell and cause irritability, vomiting, unusual drowsiness (tiredness) and other symptoms. There can be loss of feeling in the legs.

TREATMENT

- Occult Spinal Dysraphism (OSD)

OSD is treated by early surgery to relieve or prevent the stretching of the spinal cord. Sometimes other surgery and medications are needed to treat pain.

- Meningocele

The treatment of meningocele is usually only surgical closure of the defect.

- Myelomeningocele (Meningomyelocele)

Surgery to close the fluid filled sac is done in the first few days of life. A drainage tube may be needed to drain the excess spinal fluid and pressure around the brain.

Generally, a team of specialists are needed to treat this lifelong problem. Orthopedic surgery and bracing may be needed for leg, foot and hip deformities. The kidneys and bladder need to be looked at by a urologist. Treatment for urine control issues is often needed. Urinary tract infections can be prevented with medication and other treatments. Diet, medication and enemas can be used for bowel control.

HOMECARE INSTRUCTIONS

Home treatment of OSD and meningocele is usually geared to treat symptoms after surgery or pain. Home care will depend on the surgery done and the surgeon's judgment.

Myelomeningocele home treatment is directed by the team of specialists involved with the patient. It involves attention to bowel and urinary emptying and hygiene. Good skin hygiene and avoidance of really hot baths or other heat sources is important to avoid skin damage to the legs. Depending on the degree of nerve and joint problems, walking can be possible with braces, crutches, or walkers. Sometimes a wheelchair is needed.

PREVENTION

Women able to become pregnant can take 400 mcg of folic acid every day and before becoming pregnant. This can reduce her risk of having a baby with spina bifida by as much as 70%.

Document Released: 12/08/2003 Document Re-Released: 01/06/2009
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