Pyloromyotomy

Information for Parents and Carers

What is Infantile Hypertrophic Pyloric Stenosis?

When your baby is fed the milk normally flows from the stomach into the duodenum (the first part of the bowel) and small bowel (where the fluid and nutrients are absorbed). During this process, it passes through a valve called the pylorus. There is a ring of muscle at the pylorus which occasionally becomes thickened (hypertrophic). This causes the valve to narrow (stenose) which causes an obstruction, or blockage, to the passage of milk. This means that the milk cannot exit the stomach, and causes it to be vomited and may result in dehydration and weight loss. This tends to happen in babies (infants) in the first few weeks of age although may take several weeks to become apparent. It is not known why this condition develops although it can be more common in same families.

How is it treated?

Often babies are dehydrated when they arrive at the hospital and so it is important in that they are given fluids through a drip to correct this as soon as possible. We will also correct any electrolyte imbalance which may have been caused by them being unwell. Once this is resolved, an operation is required and the thickened ring of muscle near the pylorus is divided to fix the obstruction.

What are the benefits of surgery?

The benefit is that the pylorus is able to open much wider and your baby's stomach will be able to deliver the milk further through the bowel. This will resolve the vomiting. This should also allow the fluid and nutrients from the milk to be absorbed so that your baby can grow and thrive.

Are there any alternatives?

Although in the past other treatments have been tried, the surgical treatment has the best results.

What does the operation involve?

The operation is carried out under general anaesthetic; your child will be asleep during the operation. This is why it is so important that the electrolyte levels in the blood tests are corrected to ensure that the general anaesthetic is as safe as possible.

The operation aims to divide the thickened muscle so that it is less tight. This will resolve the obstruction and allow milk to pass. We aim to do this without dividing any other structures in or near the pylorus, such as the inner lining (mucosa). The cuts on the skin are closed with dissolvable stitches or glue.

The operation involves a small cut in the upper abdomen (sometimes just around the tummy button) or key-hole (laparoscopic) surgery. For key-hole surgery your child will have a small incision by the tummy button to insert a thin camera and two smaller ones on either

side of the abdomen to insert tiny instruments. With both of these approaches the operation to divide the thickened ring of muscle is the same.

If it is not possible to perform the procedure with the keyhole method then the more traditional technique would be used (conversion to the open procedure).

What preparation is needed?

Your baby will be in hospital. They will be receiving fluids through a tube in their arm, called a drip and should not feeding before the operation. If your baby is feeding before the operation, this would delay surgery because it may make them vomit and worsen the electrolyte imbalance, which needs to be closely monitored with blood tests before it is safe to go ahead with the operation. Your baby may also need a tube in their nose to drain the stomach.

What happens on the day of the procedure?

The anaesthetic doctor will come to see your baby and make plans for a safe anaesthetic. The operation will take place at a suitable time and following surgery your surgeon will let you know when your baby can start some feeds and suitable painkillers will be given.

When can my child resume feeding?

We usually restart feeds a few hours after the operation. It is common for babies to vomit a little bit straight after this surgery and if this happens, the feeds will be delayed a little longer. Many babies have a tendency to produce small vomits (known as possets) for other reasons which we might know about before or after surgery. These will sometimes need other treatments. Once your baby has recovered from the operation there is no long term consequence and your baby should grow and develop normally.

Are there any risks or complications?

As with all procedures, there are some risks from having this operation although these risks are minimised as much as possible. Your baby will be kept in hospital until they are feeding well and these risks have been dealt with.

General risks

Anaesthetic complications:

Every anaesthetic carries a risk of complications, but this is very small. Your child's anaesthetist is an experienced doctor who is trained to deal with any complication. The Royal College of Anaesthesia states that throughout the lifetime of an individual they are 100 times more likely to suffer serious injury or death from a traffic accident than from an anaesthetic. After an anaesthetic some children may feel sick and vomit. They may have a headache, sore throat or feel dizzy. These side effects are usually short-lived and not severe.

You will have the opportunity to speak to an anaesthetist before the operation.

Pain: This is usually minor, and can be managed with pain killers.

Bleeding: This is usually minor and is stopped during the operation.

Infection: All surgery has a risk of infection, but is uncommon after this operation. If the wound becomes red, hot or weeps, or your baby becomes unwell (perhaps with a high temperature or poor feeding) you should consult your doctor.

Scarring: There is usually a visible scar at the site of the incision although this is small and usually heals well. Very rarely the scar can develop a small protrusion (hernia) or overgrow and need further attention.

Risks specific to pyloromyotomy.

Persistent vomiting from inadequate muscle cut: It is common for there to be some vomiting initially when feeds are restarted after this procedure. This usually settles down after a day or so. Many babies also have a tendency to have small vomits (possets) for several reasons and this may continue even once the operation has fixed the pyloric stenosis. Sometimes this requires some medicines to help until it resolves itself as your baby grows bigger. The doctors and nurses will ensure that this is dealt with before your baby goes home and will look into this if it happens more than is normal or expected. Very rarely, the cut in the muscle is not quite big enough to resolve the obstruction and could require another procedure.

Hole in the lining of the pylorus (perforation): Rarely the cut may be too deep. This may divide not just the thickened muscle but also make a hole in the lining of the bowel. If this happened, your surgeon would close this hole. They may also give antibiotics and delay restarting feeds a little longer to help with recovery. Your surgeon is trained in dealing with complications.

Further Information

This information was produced using the latest evidence available.

Further details are available upon request.

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