What you need to know about Parastomal Hernias

At the CA National Meeting in September 2007 Chris Harmston MBChB, MRCS, Specialist Registrar at the Warwickshire GI Unit of The South Warwickshire Hospital, gave a very clear explanation of what a parastomal hernia is and why they occur. He went on to discuss how they can be prevented and what can be done once they have developed.

Most people have heard of hernias – Gazza had one! A hernia is a weakness in the abdominal wall that allows the contents to bulge out, forming a lump or swelling. They are a common problem and form around 10% of the general surgical workload.

A parastomal hernia is a hernia related to an abdominal wall stoma. It is difficult to say how common these are because different studies have come up with a wide range of figures. This is because patients have been asked different questions or been followed up for different lengths of time. However, it is clear that the incidence varies with the type of stoma. Studies have shown that between 4% and 48% of patients with an end colostomy have a hernia, for a loop colostomy results vary from 0% to 30.8%, for an end ileostomy 1% to 28% and a loop ileostomy 0.6% to 2%. So it seems that colostomates are more likely to have a hernia than ileostomates and that they are more likely to occur with an end rather than a loop stoma (although this is to be expected as temporary stomas are only in place for a short time). Most parastomal hernias occur in the first two years, although it has been known for them to develop after more than twenty years.

Although most hernias do not give rise to symptoms, ostomates who have them often notice a swelling at the stoma site or experience mild discomfort or a dragging sensation. If a section of bowel becomes trapped within the hernia this can cause an obstruction and the stoma may stop working. A hernia around the stoma may also lead to problems in fitting an appliance.

To confirm the presence of a stoma a doctor will take a history (ask questions) and then examine you. The doctor may ask you to remove the pouch so that he can observe the area around the stoma while you are standing up and lying down. He will ask you to cough or raise the upper part of your body off the examining couch, both of which increase the pressure within the abdomen making a hernia more apparent. A doctor will also use a finger to examine the inside of the stoma.

If further tests are required then an ultrasound scan may be arranged. A CT scan may occasionally be requested if it is suspected that a loop of bowel may be trapped by the hernia. It is possible that in the future MRI scans may be used.

What causes a hernia?

Like other hernias there are general factors which make the chances of developing a parastomal hernia more likely. These include being overweight or, on the other hand, malnourished. An increase in pressure within the abdomen or cancer can also contribute. Steroid drugs can make abdominal muscles weaker and as we get older muscle tone diminishes, both of which increase the risk of a hernia.

To minimize the chance of a parastomal hernia developing, surgeons aim for the smallest size of hole that allows for the passage of the bowel without it being so tight that it affects the blood supply to the stoma. A CT study has shown that an opening of more than 3cm increases the chance of a hernia occurring. Bringing the bowel out through the rectus abdominis (“six-pack”) muscle is generally considered to reduce the chance of a hernia although there is no convincing evidence that this is necessarily the case.

Prevention

Some surgeons use a synthetic mesh as a supportive structure around the stoma when it is formed to prevent a hernia developing in the future. The results of studies to evaluate the effectiveness of this technique are encouraging. However, they have only involved a small number of ostomates who have been followed up for a short time, so much larger studies are needed.
needed before there is sufficient evidence of success to make this a routine procedure. Also the inserted mesh has a theoretical risk of infection as it is a foreign material, but the studies have not confirmed this risk.

Managing a hernia

Most hernias can be managed conservatively i.e. without resorting to surgery. An operation is considered in emergency situations i.e. strangulation or obstruction, or if there is difficulty in maintaining a seal between the skin and an appliance, leading to frequent leakage. A hernia repair may also be undertaken during surgery for another complication or if the hernia is a source of pain. Where the hernia is causing embarrassment, because it is apparent even when fully clothed, a surgeon may be willing to operate, provided the patient is aware of the risks.

Surgical repair

There are different methods of repairing a hernia; some will be carried out through an incision in the abdomen (open surgery) others can be done laparoscopically (by keyhole surgery). A local tissue repair i.e. making the hole smaller, is a relatively simple procedure, but there is a 50% to 100% chance of the hernia recurring. Relocation i.e. moving the stoma to another site, is a bigger operation involving a larger incision but the chance of the hernia recurring is lower at 30%. A mesh repair was first described in 1977. Today for this type of operation the recurrence rate is only 8%; problems with infection are infrequent and rarely does the mesh have to be removed. This has become the “gold standard” repair.

Chris Harmiston concluded his very interesting and informative presentation by pointing out that parastomal hernias are common and usually do not cause a big problem. However, he reassured us that, where appropriate, they can usually be effectively treated. Also at the time stomas are formed surgeons can take steps to prevent hernias occurring in the future, and it is hoped that this will become a routine procedure.