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Parastomal Hernia

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Parastomal hernia is a known complication of stoma surgery that not only leaves the surgeon with surgical management difficulties, but also the nurse specialist in stoma care with practical appliance considerations, and the patient with the psychological distress of having a bulge or swelling visible from beneath their clothing. This article aims to discuss the plight of the ostomist with a parastomal hernia by exploring the reasons for herniation, the signs and symptoms related to hernias, the surgical management and the dilemmas that may ensue, as well as the ostomy appliance management that might be offered.

A parastomal hernia is considered to be 'an abnormal amount of intestine in the subcutaneous or intestinal tissues and may occur with any stoma' (Taylor 1999). This often results in only a slight, painless swelling that causes little or no management difficulties for the person with a stoma. However this swelling has the potential to get larger, and as it does so it brings about many other associated complications. When large, the pressure of the bowel protruding through the abdominal wall causes much discomfort, and those with a parastomal hernia often describe this discomfort as a 'dragging sensation'. This discomfort is further complicated with changes in the size and shape of the stoma - the skin around the stoma may become fragile and uneven, giving rise to skin problems. When the parastomal hernia becomes large, it often poses difficulties with everyday activities of living, with the additional risk of further complications.

It is widely acknowledged that parastomal hernia is a late complication of stoma surgery. The incidence of herniation varies throughout medical literature, but it is most stated that at least 20-30% of colostomists are likely to be troubled by a hernia, whereas the incidence is less for the ileostomist and urostomist. The recurrence rate following repair of parastomal hernia is considered to be as high as 50%.

The main reason for the development of a parastomal hernia is assumed to be weakness in the abdominal wall at the site of the stoma, but this is not always the case. There has been much debate amongst surgeons as to how the stoma is constructed in the first place, and that if a defect arises in the construction of the stoma then there is a potential increase in the probability of a hernia occurring. One of the main theories is that the stoma should be placed within the rectus muscle of the abdomen as this muscle will act as a support to the bowel, but further debate arises with which route the bowel should take prior to being pulled through this muscle. Some surgeons feel that it is unnecessary to position the stoma through the rectus muscle, particularly as with age the rectus muscle becomes thinner and weaker and therefore not able to provide adequate support to the stoma, and that this is more common in women. A defect in the ostomists' skin collagen may also play a part, although there is no study to support this view.

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There are also other factors thought to contribute to the development of a parastomal hernia including obesity, malnutrition, chronic cough, sneezing, straining in constipation and prostatism, all of which give rise to raised intra-abdominal pressure. An additional factor is that of abdominal sepsis following surgery, possibly due to steroid use prior to surgery.

The treatment or management of parastomal hernias is conservative (non-surgical), or surgical. Conservative management includes the ostomist wearing some form of support garment such as a girdle or belt. Surgical treatment might include –

- Local repair, where the hernia is repaired at the site of the hernia.
- Repair and resiting of stoma, where the hernia is repaired and the stoma sited in another position.
- Repair using a non-absorbent mesh, where the hernia is repaired and reinforced with a mesh for additional internal support.

There is however reluctance for surgeons to surgically repair parastomal hernias in view of the 50% recurrence rate following any surgical intervention, particularly when a local repair has been undertaken. This is when the dilemmas begin for the ostomist, and for the nurse specialist, as attempts are made to manage the hernia conservatively. From my own clinical experience of ostomists with parastomal hernias, they not only become distressed due to the unsightly bulge or swelling that develops, but many express difficulties managing their stomas. As the parastomal area enlarges the stoma function becomes progressively more unpredictable. Many are extremely embarrassed as wind (flatus) seems to increase and become more noticeable, whilst the output appears to fluctuate between sluggish (small pellets) to explosive (diarrhoea), making appliance fitting extremely difficult. Some ostomists have expressed difficulties when buying suitable clothing as they often feel 'lopsided' and would have to opt for a larger size.

As the nurse specialist makes her assessment of individual cases, ostomists not only require advice in order to support the parastomal hernia, but also require advice as to how to manage a dysfunctional stoma. When managing the appliance, a one-piece system would be considered better than a two-piece system as it is less bulky. Of the one-piece appliances available, it is recommended that the use of a large circular or oval shaped adhesive, or a product with two adhesives, be used so that the appliance will have the opportunity to stick better. However these are not always suitable for the individual because an appliance with a large adhesive area usually comes with a large bag, which is not everyone's choice.

Whilst assessing the stoma function it may be necessary to consider the dietary habits of the ostomist. Taking a dietary history could help identify the dysfunctional problems, the amount of fibre and type of diet eaten. It might be suggested that fibre could give rise to

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a bolus causing a blockage, pain and discomfort, but that it could also have a role in thickening the stoma output. Therefore it might be necessary to keep a 'diet diary' for a time in order for the nurse specialist to make an assessment with regard to an individual's dietary intake.

The mainstay treatment for parastomal hernia is that of a girdle or belt. There are several types available, however the individual must be measured and fitted appropriately prior to use. Up until recently most girdles and support belts would come with a reinforced hole for the stoma and appliance to be fitted through. Reports now show that a hole in the corset or belt is not necessary as it will only exacerbate the very problem it seeks to correct. Some nurse specialists feel that without the hole in the girdle or belt, the stoma output is unable to flow freely, thus leading to 'pancaking' where the faeces do not fall to the bottom of the appliance.

It is acknowledged that further research is required into the management and treatment of parastomal hernias which include –

- Should a mesh be routinely used when surgically repairing the parastomal hernia?
- Should the ostomist be fitted for a support belt in the immediate post-operative period?
- Should the support have a hole or no hole?
- Should a dietary education programme be commenced?

More recently however, preventative measures have been highlighted, and it has been suggested that patients should be assessed for the risk factors associated with parastomal hernia, and should then be advised with regard to support belts, dietary needs, re-establishing activities such as lifting, and playing sport. Some studies are exploring preventative measures with regard to parastomal hernia, and research is in its infancy exploring whether it is appropriate for all ostomists with newly formed stomas to undertake abdominal exercises in order to strengthen abdominal muscles, and thus prevent hernias occurring in the first place.

References :

Taylor, P. (1999) *Stoma care in the community – a clinical resource for practitioners*. E-map Health Care:London