

The Management, Complexity and Challenges of a Double Barrelled Stoma, on a patient with a high volume output and a BMI of 35.

Overview...

Pat was diagnosed with a large rectal tubular villous adenoma (TVA) in November 2008. At the time of diagnosis the lesion was benign, but it possessed the potential to become malignant.

Pat underwent laproscopic assisted abdominoperineal excision of the rectum (APER) and formation of an end colostomy three weeks after diagnosis. Initially, the surgical outcome looked favourable and recovery was good. One month later, Pat developed a subacute bowel obstruction resulting in a second operation; this time requiring a laparotomy/midline incision.

The operation revealed that segments of small bowel had become trapped in the right paracolic gutter and adhesions had formed around them. Two small bowel enterostomies were

performed to free up the small intestine, but re-anastomosis was avoided owing to a low pre-operative albumin. A double-barrelled stoma was constructed (one segment of ileum and one segment ascending colon) and positioned on the right-hand side of the abdomen, leaving the colostomy redundant.

The stoma was situated along a deep crease, running along the patient's waistband and was totally hidden from sight. The patient's position & posture was absolutely crucial to pouch security, since this altered the severity of the crease from half an inch to four inches.



Approach 1

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Problems...

- The proximal limb spewed out corrosive effluent directly onto the patient's skin.
- The stomal mouth (proximal) was off centre and lay at 6 o'clock.
- The stomal output ranged from 1.5 – 2 litres in a 24 hour period.
- There were up to 10 bag changes a day.
- Any form of movement (e.g. sitting, standing, walking) precipitated leakage.
- The patient appeared not to possess the mental capacity to cope with the stoma independently.



▲ Powder was applied liberally to the peristomal skin in an attempt to soak up excess moisture from the skin.



▲ A one piece convex pouching system (cutting to 46mm) and a large Hollister Adapt Ring (applied directly to the flange prior to application) was initially trialled.

A thin hydrocolloid was fitted to the outer edges of the flange (for additional security) and a 1 inch elasticated belt attached to the belt tabs to hold the appliance firmly in position.

This approach gave pouch security from 20 minutes to 3 hours.

Approach 2



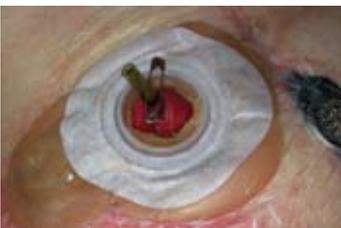
▲ Skin integrity becomes much worse and it is impossible to prevent faecal contamination. A rectal tube is inserted down the proximal limb and anchored by way of a silk stitch to the skin (at 12 o'clock), so as to prevent the tube from falling out. It was genuinely felt that this approach might shift the stomal opening/mouth significantly, so as to make the opening more central. This would then, it was assumed, direct the effluent directly into the appliance, away from the bottom ledge of skin (6 o'clock) that it came into contact with. Sadly, the rectal tube made no difference in diverting the faecal flow and so it was removed seven days later.



▲ The deep creases (at 3 + 9 o'clock) were built up with many layers of Hollister Adapt Rings (large size).

Initially, one full ring was halved and each half then folded into a quarter and placed either side (right and left) of the stoma. Then half circles were applied directly on top of these (right and left) of the stoma. Finally, whole circular rings were applied uppermost.

Overall, four layers of Hollister Adapt rings were applied to the stomal area/plane, with Adapt paste being applied central to the stoma to create a waterproof seal. The paste was also applied along any joints that were visible within the Adapt rings.



▲ A deeper, more rigid convex flange (2 piece) was applied with a high output pouch. Tegaderm (a waterproof transparent film) was applied to the outer edges of the flange (for extra security) and a 1 inch elasticated belt attached to the belt tabs to hold the product more firmly in position.

This approach gave pouch security for 1 to 3 hours.

Approach 3



▲ The skin continued to worsen and the excoriation extended out towards the right hip bone. The effluent was excessive and projectile. Suction equipment was essential when renewing the appliance, literally to contain the output.



▲ The whole stomal perimeter is built up with many layers of the Hollister Adapt Rings, and care is taken to ensure that the deep creases at 3 + 9 o'clock are filled with extra layers. A lip is constructed around the stoma, so that waste / effluent can drain more easily into the pouch.

Overall, 10 large Hollister Adapt rings were used per dressing, plus Adapt paste which was taken right down to the stomal bed, so that nothing had a chance to undermine the rings. This primary dressing took ¾ of an hour to one hour to complete.

A standard, flat, transparent appliance was used to dress the stoma, with six additional forty-fix strips applied to the outer edges of the flange.

This approach gave pouch security for 30 minutes to 10 hours.

Approach 4



▲ The same approach as in number 2 with the same preparatory skin work is tried, only this time a standard 57 mm, two – piece, transparent pouch (with a taped border) is applied with an additional large Hollister Adapt ring and 1 inch elasticated belt.

This approach gave pouch security for 10 minutes to 2 hours.

Approach 5



▲ A thin layer of powder was applied to the damaged peri-stomal skin, which helped to soak up excess moisture. The damaged area lay between 3 + 9 o'clock.



▲ In an attempt to dry the skin further, two, 1" x 3" layers of Aquacel (a sea-weed based, alginate dressing) were applied to the excoriated skin. The soft hydrocolloid pad was then occluded with Adapt paste so that it was completely hidden from view. The combination of these two products, allowed the sore skin to repair itself without the effluent being able to contaminate it. The Adapt paste created a waterproof seal.



▲ A convex pouching system with an additional Hollister Adapt Convex ring were put together to create a DOUBLE CONVEX SYSTEM, with increased depth.

Prior to pouch application the whole stomal perimeter (including the Adapt paste) was saturated with Hollister Adhesive solution and before the skin had a chance to dry completely the pouching system was applied. Pressure was exerted to the inner plastic ring for a full 5 minutes, to obtain maximum adhesion.

Finally a Hollister 1 inch elasticated belt was attached to the belt tabs to hold the appliance more securely in position and to prevent any kind of movement.

This approach gave product security for 8 to 40 hours.