Soft convexity: is it the panacea for all stomas?

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1. **The use of convex products has enabled secure pouching for difficult stomas for many years...**

   Clinical indications for use of convexity:
   - **Retracted stoma:** below the abdominal wall.
   - **Flush stoma:** at the same level as the abdominal wall.
   - **Uneven skin contours:** crease, dips & folds.

   (Turnbull 2003)

2. **However it has had its limitations as contraindications for the use of a convex pouch have included...**

   Clinical contraindications/caution for using convexity:
   - **Post-operative stage**
   - **Parastomal hernias**
   - **Mucocutaneous separation**
   - **Peristomal skin damage**
   - **Pyoderma gangrenosum**
   - **Ulceration**
   - **Prolapsed stoma**
   - **Crohns & colitis**

   (Lyon & Smith 2010)

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Nurses have been known to avoid the use of convexity due to the potential pressure damage caused, instead using varied combinations of fillers, seals and paste with a flat pouch.

Literature surrounding the concern of using convexity appears to be based on the use of firm convexity, with or without adding extra seals and paste. There is growing evidence to break the conventional approach and use the soft convex on leaking stomas which fit into the clinical contraindications (box 2).

A recent clinical trial with convex pouches discounts patients who have severe peristomal skin problems, such as bleeding or broken skin or those receiving adjuvant therapy (Kruse and Storling 2015). In my clinical practice the following patient case studies and their problems demonstrate that using a soft convexity pouch can be a solution for all patients.
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Case studies using soft convex pouches:

Jane

Jane had suffered with Crohn’s for 45 years and was an emergency admission requiring laparotomy and formation of loop ileostomy. She continued to suffer complications and returned to theatre for laparotomy, reduction of eviscerated small bowel, revision of prolapsed loop ileostomy and mesh insertion between bowel and anterior abdominal wall.

Jane developed an abdominal collection and break down of midline wound and peristomal skin. The peristomal skin began to ulcerate at the top aspect of the mucocutanous junction and as the stoma and abdomen began to reduce in size, the ileostomy settled into a dip in her abdominal wall. This caused significant problems with leakages whilst trying to maintain skin integrity.

A flat pouch did not last 24 hours and the seepage was causing her peristomal skin condition to deteriorate. Anecdotal evidence did not recommend the use of convexity on ulcerated skin or with a previous prolapsed stoma (Lyon and Smith 2001). However we were unable secure a suitable pouching system, causing concern about Jane’s deteriorating skin. On this basis we made a clinical decision to try and use the soft convex maxi pouch and monitor her peristomal skin.

The pouch lasted for 12 hours and her general peristomal skin continued to be damaged due to faecal irrigation, however the ulcerated area did not deteriorate. We decided to not increase the depth of the convexity, but to add a seal and position this at the weakest point between 3 and 6 o’clock. Using both the seal and soft convexity the pouch remained leak free for over 24 hours.

We decided to change the pouch every 24 hours to observe the skin, by day 2 the faecal irritation was almost gone and the ulcerated area was improving. Jane was able to have uninterrupted sleep and became proficient at changing her pouch independently.

Robert

Robert was 72 years old and was diagnosed with metastatic bladder cancer. During palliative chemotherapy, he developed a bowel obstruction requiring a defunctioning colostomy for symptom management.

Robert developed a large parastomal hernia, with his colostomy sitting in a crease and sloping to one side with a flat profile to the abdominal wall. This was causing problems with leakage and excoriated skin.

In clinical practice avoidance of using a convex pouch with a parastomal hernia has been the norm, however with the development of soft convexity, we were able to secure a pouch which was leak free and comfortable for Robert.

Elizabeth

Elizabeth was 74 year old lady who following a diagnosis of a primary gynaecological cancer needed to have a laparotomy, resection of pelvic mass, omentectomy, recto sigmoid colectomy and loop ileostomy.

At a home review Elizabeth was having problems with very sore, stinging peristomal skin due to frequent leakages. Elizabeth was so uncomfortable she could not bear the pouch on her skin, which wasn’t adhering due to the extensive excoriated, bleeding, wet peristomal skin.

Her stoma was positioned in a moat and sloping to one side with evidence of peristomal separation. Elizabeth found the firm convex pouch too uncomfortable to wear and preferred to wear the flat pouch when she left the house.

I demonstrated the possible effectiveness of the soft convex pouch to securely fit around and into the peristomal junction to create a good fit and protect the surrounding skin. The soft convex base plate allowed the stoma to dispose of the effluent into the pouch rather than leaking onto her skin.

Elizabeth agreed to trial the pouches and within a week the peristomal skin had improved and the mucocutanous separation had healed. Although her skin was still healing and improving Elizabeth felt no discomfort and was confident to wear the pouch at all times with no leakages.

Conclusion:

Development of soft convex pouches has allowed the clinical nurse specialist to use a secure, comfortable drainable pouch on a variety of problematic stomas which would not have been possible before. These case studies provide clinical evidence in my nursing practice how soft convex pouches can provide a secure fit on difficult stomas whilst not compromising the stoma or the peristomal skin. This demonstrates where traditional convex pouches have eluded to contribute damage the stoma and skin; the soft convex has offered a solution without compromise.

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References:

