

A Case for Soft Convexity in Managing Difficult Ostomies

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INTRODUCTION

When stomal construction, siting and abdominal contours are not ideal, convexity is often utilized to deal with unacceptable wear time. Convexity is defined as the outward curving of the pouch faceplate that interfaces with the peristomal skin. This convex pouching surface may be firm or soft. The type of convexity selected is based upon a thorough assessment and an understanding of the clinical implications of each type. When firm convexity is not appropriate (refer to Table 1), soft convexity may help to improve wear time and ostomy patient outcomes.

CASE STUDY ONE

A 44 year-old male presented with painful peristomal skin loss around his colostomy. His past medical history included spina bifida, paraplegia, left BKA, anxiety, depression, ileal conduit at age two, descending colostomy at approximately age 40, and chronic pressure ulcers secondary to wheelchair status with inadequate pressure shifting. The patient was utilizing a two-piece flat pouching system and reported pouch changes every



Figure 1



Figure 2

24 to 48 hours due to leakage from both pouches. Both ostomies were flush and in the same plane (Figure 1). Soft convex rings were added to his pouching system. The barrier ring was easily molded to conform to the irregular shape of his colostomy. Ostomy belts were modified to hold the pouching system securely (Figure 2). The wear time on his new pouching system increased to 4-5 days and the patient voiced a greater level of confidence and security.

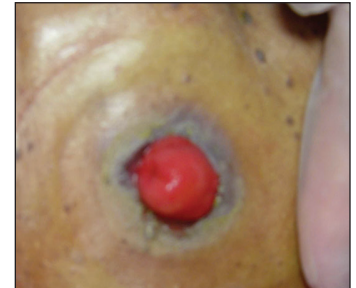


Figure 3



Figure 4

CASE STUDY TWO

A 68 year-old female with a history of Crohn's Disease and perirectal fistulas who was one-month s/p total abdominal colectomy with end ileostomy was re-admitted to our facility.



Figure 5

The clinical assessment revealed a ring of peristomal pressure damage with superficial skin loss from 11 to 1 o'clock (Figure 3). Soft convex barrier rings were utilized to replace the firm convexity to decrease pressure on the peristomal skin (Figure 4). After one week, the skin was less discolored (Figure 5). The skin damage continued to improve with this change in management.

Table 1
When Firm Convexity May Be Contraindicated

Clinical Situation	Rationale
Peristomal hernia	<ul style="list-style-type: none"> • Risk for increased pressure with concave (hernia) and convex (barrier) surface interface
Immediate postoperative period	<ul style="list-style-type: none"> • Potential to deliver too much pressure to new suture line • Potential risk of mucocutaneous separation • Risk for laceration due to postoperative swelling
Deep skin fold	<ul style="list-style-type: none"> • Firm convexity will not maintain a skin contact with position change
Caput medusae	<ul style="list-style-type: none"> • Risk for increased pressure to fragile peristomal skin
Radiated peristomal skin	<ul style="list-style-type: none"> • Risk for increased pressure to fragile peristomal skin
Inappropriate use	<ul style="list-style-type: none"> • Evidence of tissue damage due to prolonged pressure from a firm convex system being worn against skin surface • Abdomen too hard which creates undue pressure between the firm abdominal skin and firm convex interface

CASE STUDY THREE

A 49 year-old female with anoxic brain injury, ulcerative colitis, total abdominal colectomy with ileal J pouch and ileostomy revision presented to our facility with leakage. Her ostomy was high output, would telescope, and was located in a crease with multiple surrounding creases and scattered skin loss (Figure 6). Her elderly mother was serving as her caregiver. She was already using a pouch with a mild degree of convexity without resolution. A soft convex ring was added to her convex pouching system to enhance the depth of the convexity. This change resulted in an improvement in her wear time to four days. Her mother was provided with written, step-by-step instructions.



Figure 6

CONCLUSION

By combining knowledge of products, creativity, and skill in appliance fitting, the WOC nurse helps to resolve challenging pouching situations. Soft convex skin barrier rings can be used to enhance convexity or when firm convexity is contraindicated. Soft convexity is a useful tool to resolve pouching problems and create positive, cost-effective clinical outcomes.

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References

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- Rolstad BS, Boarini JH. Principles and Techniques in the Use of Convexity. Ostomy/Wound Management. 42(1), January/February 1996, 24-33.



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