

Managing a peri-stoma allergy caused by the interaction of antibiotic treatment & a specific skin barrier contact

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► Overview:

Due to an infiltrating bladder cancer, Mr G, 74 years old, had on December 2007 a "Coffey" surgical procedure (radical cystectomy with a bypass of both ureters into the rectal ampulla). But 20 days after the surgery, the patient was complaining from voiding problems via his rectum (complaint of urinary leakage with urgency stool incontinence).

To address this clinical problem, an end colostomy was fashioned to divert the stool evacuation. And to manage the urinary leak, an indwelling catheter was placed into the rectum.

On June 2008, the medical analysis showed a left hydronephrosis; due to a stenosis of the uretero-rectal anastomosis. Therefore to relieve the left kidney, a percutaneous nephrostomy was carried out and a catheter was left insitu.

As a result of the combined surgeries, the patient had 2 separate ostomies: one left front colostomy with a newly launched 2P system (SenSura Click), one left back nephrostomy with a 1P system, Moderma Flex and also an indwelling rectal catheter.

In November 2008, Mr. G consulted me and mentioned he just started a new antibiotic treatment that seemed to cause an itching over his body and a burning sensation with oozing all

around his colostomy.

Because of a phlyctena (a small blister caused by a burn) on the skin surrounding the colostomy, a significant piece of the skin layer was taken off whilst trying to remove the skin barrier from the left colostomy.

However, what was important to observe, is that there was no damage or any skin barrier reaction around the nephrostomy where the 1 piece system Moderma Flex has been used.



The left colostomy
This picture shows the burnt skin around the left colostomy once the 2P system was removed.

November, 2008



The left nephrostomy
This picture shows that the skin around the nephrostomy was intact thanks to the use of 1P system.

November, 2008

► Methods & Materials:

By comparing both stomas, nephrostomy and colostomy, it was evident that the lesion around the colostomy was an allergy caused by the reaction of the contact between the skin and the 2P system.

As an ET nurse, my purposes were to provide a maximum wear time (2 to 3 days) of the stoma system over the lesion, to achieve successful healing of the burnt peri-stomal skin and to find a compatible barrier that would not react with the antibiotic treatment.

1 - Prior to pouch application, Adapt powder was applied over the weeping area. The composition of this powder allows obtaining a dried skin and a better adhesiveness of the stoma system.

2 - Made with Flexend M technology, an Adapt Barrier Ring was shaped around the colostomy.



November, 2008

The left colostomy
This picture shows the Adapt powder that was applied over the weeping area and the Adapt Barrier Ring once shaped around the colostomy.

4 - With a hole cut in the middle, a hydrocolloid film was applied to obtain a large surface of adhesiveness.



November, 2008

The left colostomy
this picture shows the hydrocolloid film in situ prior to the application of the 2P system.

5 - Finally, a 2P system was applied over the hydrocolloid film.

While a new 2P system, with accessories, was utilized for the colostomy; the 1P system, continued to be used around the nephrostomy.

► Results & Discussion:

This regimen: 2P system, combined with accessories: Powder, Barrier ring, Paste & Hydrocolloid film, protected the colostomy and peri-stomal skin and thus achieved a maximum wear of the ostomy appliance.

The first day, the stoma system was maintained for just 6 hours, but the wear time quickly increased and the patient achieved 3 day-wear time by using the same regimen.

Once we took off the skin barrier that had caused the reaction and applied another 2 piece system, the wound healing process took about 4 weeks.



The left colostomy
this picture shows a thin skin layer that was formed.

2 weeks later



The left colostomy
this picture shows a delicate peri-stoma skin but the burn was healed.

1 month later

The benefits were considerable, and the patient regained comfort and security with his new ostomy system.

Thanks to their unique formulation, the Adapt accessories provide extended wear time with additional resistance to liquid output.

Certainly, antibiotic treatment may generate skin irritation due to adverse reaction, but the local skin lesion diagnosed on my patient, Mr G, was mainly caused by an irritation contact. And as shown above, all the stoma barriers that are on the market aren't the same. Undoubtedly the difference lies in their components; the main key when choosing a barrier whether it's a colostomy, an ileostomy or a urostomy.

In this case study it was interesting to analyze the reason why a specific 2P system created a significant deterioration of the skin while the 1P system, did not deteriorate the skin.

Using the SoftFlex technology, the skin barrier of the Moderma Flex allows for frequent changes of the pouch without compromising the security.

► Conclusion :

Risk may be defined as "the chance that something may happen to cause loss or an adverse effect"¹. And regardless of all the precautions taken, patients undergoing stoma formation are at risk of developing a wide range of complications following surgery. Complications that we can't predict but perhaps prevent them by adapting stoma devices.

For example, some treatments, like chemotherapy may alter the skin². But as we discussed in this case study, Antibiotic treatment can also modify the composition of the skin layers and cause serious skin damage.

The skin represents a protective barrier against the external environment³; therefore whenever we adapt an ostomy system, we, as ostomy care nurses, have the responsibility to maintain the integrity of the peri-stoma skin.

¹ Concise Oxford Medical Dictionary, 2003

² Vidal dictionary, 2008

³ Abnormal stomas and their skin disorders, An Atlas of Diagnosis and Management, Calum C Iyon, Amanda J Smith, Edition Martin Dunitz Ltd, 2001, page195