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Managing fecal incontinence in a rehabilitation patient with neurogenic bowel

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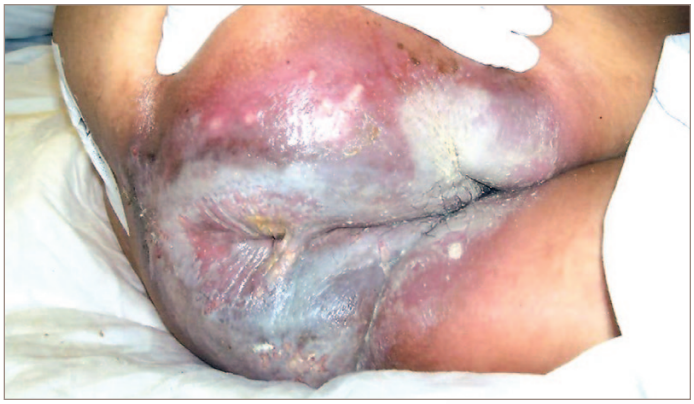
Problem Statement and Rationale

Indwelling bowel catheters have been available for several years and are used widely in acute care facilities. Their benefits include improvement in perineal skin condition (Keshava et al, 2007), reduction in the risk of pressure ulcers (Benoit & Watts, 2007), and reduced exposure of staff and hospitalized patients to infectious waste. This case report describes how the use of an indwelling bowel catheter* helped to promote skin healing to reduce pain from injured skin in a patient receiving rehabilitation services in a sub-acute setting.

Case Report

This 59-year-old female was transferred to our rehabilitation facility with a diagnosis of chronic foot drop, bilateral lower extremity weakness, and bowel and bladder incontinence. Prior to admission, she had been treated surgically, with a decompression laminectory, a partial corpectomy and resection of metastatic spinal tumor.

The patient was incontinent and passing paste-like stool almost continuously. Prior attempts at skin protection (absorbent pads and briefs, plus use of a moisture barrier cream) had been ineffective. The skin was open, painful, and reddened. A wound and skin care consultation was completed, and an indwelling bowel catheter* was recommended.



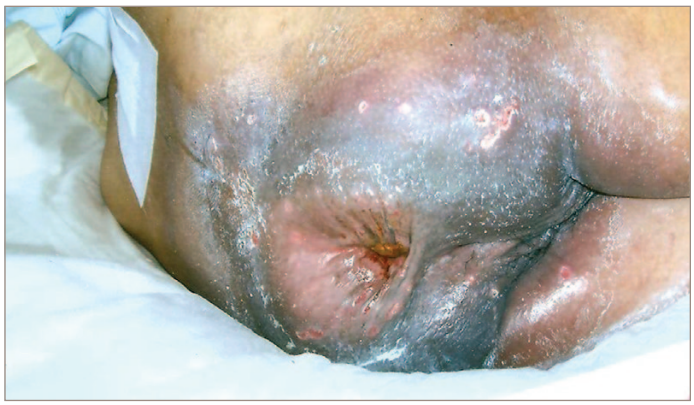
Perianal skin damage at time of initial WOC Nurse consultation. Total area was 48 cm L x 34 cm W. The most severe wounds were within a 8 cm L x 9 cm W area.

The patient's skin healed over the course of the next week, with the indwelling bowel catheter system in use. A zinc oxide based skin protectant was used around the anus to provide additional protection against oozing. Within two days after insertion of the indwelling bowel catheter, the patient was pain-free, even when perineal care was delivered. The patient was able to participate in physical therapy activity, sit in a wheelchair, and shower with the device in place.

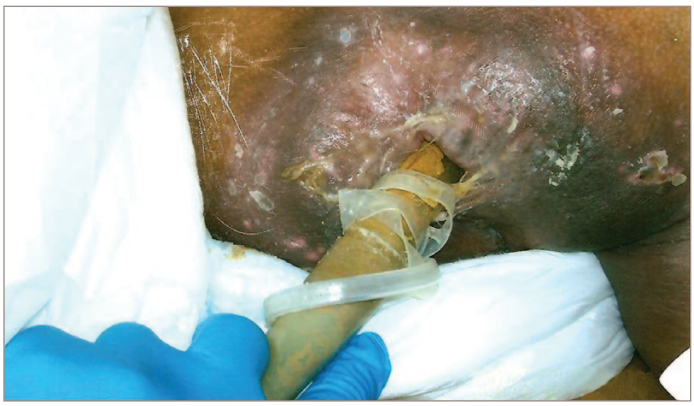
The indwelling bowel catheter system we selected was one with an intralumenal balloon, anchor straps, and access for medication and irrigation administration. This system allowed us to irrigate the distal rectum with 300 mL of water daily, and keep the system functioning well despite variable stool consistencies.

Indwelling bowel catheter

"The indwelling bowel catheter system helped improve the condition of the skin, reduce pain from injured skin, and enhance dignity for the patient."



Skin improvement after two days of use of the indwelling bowel catheter.



Resolution of skin damage after seven days of use. The catheter was subsequently discontinued.

Results and Conclusions

The indwelling bowel catheter system helped improve the condition of the skin, reduce pain from injured skin, and enhance dignity for the patient. Use of this system did not interfere with therapy or activity. We used daily irrigation to keep the catheter patent, which allowed us to continue the therapy even in the presence of a thicker stool consistency.

References

Benoit RA, Watts C. (2007). The effect of a pressure ulcer prevention program and the Bowel Management System in reducing pressure ulcer prevalence in an ICU setting. JWOCN 34(2), 163-175.

Keshava A, Renwick A, Stewart P, Pilley A. (2007). A nonsurgical means of fecal diversion: The Zassi Bowel Management System. Dis Colon Rectum, 50(5), 1017-22.

Zassi® Bowel Management System
Product Information

NON STERILE:
Single patient use only. Latex-free.

CAUTION:
Federal (USA) law restricts this device to sale by or on the order of a physician.

Refer to the complete Zassi® BMS Instructions for Use supplied by the manufacturer for directions on how to properly use this product.

1. INTENDED USE

The Zassi® Bowel Management System (BMS) is intended for diversion of fecal matter to minimize external contact with patient skin, to facilitate the collection of fecal matter for patients requiring stool management, to provide access for colonic irrigation and to administer enema/medications.

2. CONTRAINDICATIONS

- Do not use in patients having known sensitivities or allergies to the materials used in this device.
- Do not use if the patient's distal rectum cannot accommodate the inflated volume of the retention cuff or if the distal rectum/anal canal is severely strictured (e.g., secondary to tumor, inflammatory condition, radiation injury, scarring).
- Do not use on patients having impacted stool.
- Do not use on patients with a recent rectal anastomosis (less than 6 weeks old), or a recent anal or sphincter reconstruction (less than 6 weeks old).
- Do not use on patients with compromised rectal wall integrity (e.g., ischemic proctitis).

3. WARNINGS

(Failure to comply with the following warnings may result in patient injury)

- Do not use if package is open or damaged.
- Do not use improper amount or type of fluids for irrigation or cuff/balloon inflations. NEVER use hot liquids.
- Do not over inflate retention cuff or intralumenal balloon.
- Inflation of the intralumenal balloon causes complete catheter occlusion. Do not leave intralumenal balloon inflated in an unattended patient. To verify complete deflation of the intralumenal balloon, aspirate all air until red connector ("STOP FLOW 20cc AIR") pilot balloon is collapsed when the syringe is removed from the connector.
- Use only gravity or slow manual irrigation. Do not connect manual pumping devices to catheter irrigation lumen. Do not irrigate patient with compromised intestinal wall integrity.
- Though the Zassi® BMS Catheter is an effective adjunct in the management of patients with severe diarrhea of many etiologies, extreme caution should be exercised in patients at risk for the development of toxic megacolon. Specifically, the occluding feature of the inflated intralumenal balloon could aggravate this situation.
- Take care to perform irrigations and enema/medication administrations via the clear connector ("IRRIG/Rx") AND NOT via the blue connector ("CUFF 35-40cc H2O") or red connector ("STOP FLOW 20cc AIR").
- Blood per rectum should be investigated to ensure no evidence of pressure necrosis from the device. Discontinuation of use of the device is recommended if evident.
- Abdominal distention while using the device should be investigated.
- The section of catheter that crosses the anal canal (transsphincteric zone) is collapsible to minimize the likelihood of clinical sphincter dysfunction. Excessive prolonged traction on the catheter resulting in the retention cuff migrating into the anal canal could result in temporary or permanent clinical sphincter dysfunction, or catheter expulsion.

4. PRECAUTIONS

- Do not sterilize.
- The Zassi® BMS Catheter is not intended for use longer than 29 days.
- The Zassi® BMS Catheter is not recommended for pediatric use.
- To avoid damage to retention cuff or intralumenal balloon, DO NOT contact either with ANY sharp edge.
- The Zassi® BMS Catheter may not be effective in individuals who have had their distal rectum significantly altered by surgical resection or reconstruction.
- Patients with very weak sphincter function may expel the catheter under normal use or may have increased leakage of stool or irrigation fluids compared to patients with normal sphincter function.
- Caution should be observed in patients whose rectum may be altered by stricture due to radiation or affected with radiation proctitis.
- Patients with severe tenesmus or patients who experience tenesmus or severe pain after insertion of device may not tolerate the catheter in place.
- Avoid inserting anything into the anal canal with the catheter in place to minimize the chance of catheter or patient damage (e.g., thermometer, suppository, etc.).
- Care should be taken when disconnecting syringe from clear connector (IRRIG/Rx). Fluids being retained in the rectum and colon may drain or spatter from connector upon disconnect.
- Use WATER ONLY to inflate retention cuff. Do not use saline solution, which may adversely affect valve function.
- Use air only to inflate intralumenal balloon. Do not use water or other fluid.
- Do not use vigorous aspiration to remove fluid from cuff or balloon. Vigorous aspiration may collapse the inflation lumen and/or pilot balloon and prevent cuff or balloon deflation.
- Do not allow ointments or lubricants having a petroleum base (e.g., Vaseline®, petroleum based hand/body lotion) to contact the catheter. They may damage the silicone and may compromise the integrity of the device.
- Feces contains infectious material. Spatter can occur while disconnecting or emptying the collection bag or removing catheter from patient. Care should be taken to protect the caregiver and others from spatter.
- Use only a Zassi® BMS Collection Bag with a Zassi® BMS Catheter.
- After use, this product is a potential biohazard. Handle and dispose of in accordance with universal precautions for contaminated materials.

5. ADVERSE EVENTS

The following adverse events may be associated with the use of any rectal device:

- Infection
- Pressure necrosis
- Obstruction
- Excessive leakage of fecal contents
- Perforation
- Loss of sphincter tone

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