Geliş Tarihi (Received): 22.10.2024 Kabul Tarihi (Accepted): 28.11.2024

Case Report/Olgu Sunumu

Management of Peristomal Skin Complications with Nursing Care: Case Series

Peristomal Cilt Komplikasyonlarının Hemşirelik Bakımı ile Yönetimi: Vaka Serisi

Rabia KOCA[1]

Cansu ÇIRAK[2]

Hatice BALCI[3]

Hasan Fehmi KÜÇÜK[4]

[1]Nurse, Kartal Lütfi Kırdar City Hospital, İstanbul, Türkiye

[2]Nurse, Kartal Lütfi Kırdar City Hospital, İstanbul, Türkiye

[3]Asist. Prof. Dr., KTO Karatay University, Konya, Türkiye

[4]Prof. Dr., General Surgery Clinic, Kartal Lütfi Kırdar City Hospital, İstanbul, Türkiye

Yazışmadan sorumlu yazar: Hatice BALCI, hatice_balci_87@hotmail.com

Alıntı (Cite): Koca R., Çırak C., Balcı H., Küçük HF. Management of Peristomal Skin Complications with Nursing Care: Case Series. YBH dergisi. 2024; 5(3): 100-108

Abstract:
Periostomal skin complications that may occur in stomas, which have vital importance, may adversely affect the life of individuals. Individuals with a stoma may face complications such as infection, prolapse, necrosis, mucocutaneous separation, retraction, and peristomal skin problems. These complications are visually manifested by sensory symptoms such as discoloration, pain, itching, and burning. In this case series, the care applied to individuals with a stoma was described in writing. In addition, the results of care were shown with regular and progressive pictures taken from the stomas. The care provided to individuals with stoma in this case series was performed by trained and expert stomatherapy nurses in collaboration with the physician. It is a fact that there is a need for expert stoma nurses in the field of prevention and management of complications encountered by individuals with stoma. Our nursing care and application interventions for managing peristomal skin complications such as irritant dermatitis, mucocutaneous separation, wound, and pseudovaricous lesions are shared in our case series. In all cases, uncontrolled tissue growth (DET) score, which was high before wound care, decreased after nursing care.

Key Words: Stoma; ostomy; complications; nursing care.

Özet:
Hayati öneme sahip olan stomalarda oluşabilecek peristomal cilt komplikasyonları bireylerin yaşamını olumsuz yönde etkileyebilmektedir. Stoması olan bireyler enfeksiyon, prolapsus, nekroz, mukokutanöz ayrılma, retraksiyon ve peristomal cilt problemleri gibi komplikasyonlarla karşı karşıya kalabilir. Bu komplikasyonlar görsel olarak renk değişikliği, ağrı, kaşıntı ve yanma gibi duyusal semptomlarla kendini gösterir. Bu olgu serisinde stomalı bireylere uygulanan bakım yazılı olarak ifade edilmiştir. Ayrıca stomalardan alınan düzenli ve aşamalı resimlerle bakım sonuçları gösterilmiştir. Bu olgu serisindeki stomalı bireylere uygulanan bakım alanında eğitimli ve uzman stomaterapi hemşireleri tarafından hekim ile iş birliği halinde uygulanmıştır. Stomalı bireylerin karşılaştığı komplikasyonların önlenmesi ve yönetimi için alanında uzman stoma hemşirelerine ihtiyaç olduğu bir gerçektir. Olgu serimizde irritan dermatit, mukokutanöz ayrılma, yara ve psödovariköz lezyonlar gibi peristomal cilt komplikasyonlarının yönetimine yönelik hemşirelik bakım ve uygulama girişimlerimiz paylaşılmıştır. Tüm olgularda yara bakımı öncesinde yüksek olan kontrolsüz doku büyümesi (REK) skorunda hemşirelik bakımı sonrasında düşme meydana gelmiştir.

Anahtar Kelimeler: Stoma; ostomi; komplikasyonlar; hemşirelik bakımı.

Introduction

Nowadays, individuals with stomas are discharged early after surgery due to improvements in surgical techniques and the desire to reduce hospital costs.[1] In this case, individuals with stomas are left alone with this physiological change in their bodies, which is a different experience and requires care, earlier.[2,3] Therefore, they cannot fully learn the basic knowledge and skills related to maintaining their care in a large period and have difficulties in home care practices. In addition, complications may develop due to inadequate preoperative preparation, inadequate postoperative care, location of the stoma and its height above the skin level, age, and comorbidities.[1,4] Specialists nurse have reported that approximately 80% of their patients develop peristomal complications.[5] It is a fact that stoma and wound care nurses with up-to-date knowledge in the field of prevention and management of complications faced by individuals with stoma are needed.[1]

Complications are classified as stomal complications and peristomal skin complications.[4] It has been reported in the literature that the most common complications are peristomal skin complications and these complications can occur as irritant dermatitis, folliculitis, allergic dermatitis, mechanical trauma, parastomal hernia, infection, pseudovaricose lesions.[4,6,7]

The Peristomal Skin Tool was used to determine the condition of the peristomal area and to measure improvement and deterioration of the peristomal skin between assessments. The Peristomal Skin Tool consists of two parts; Discoloration, Erosion, Uncontrolled tissue growth (DET) score calculation guide and Evaluation, Intervention, Follow-up guide.[6] In our case series in the light of literature information; we aimed to share our practices for managing peristomal skin complications according to the REK score calculation guide in nursing care applied with the participation of the stomatherapy nurse in the hospital, one of the authors of the article.

Case Reports

Case 1: Our 49-year-old female patient had a BMI of 40.4: In the first postoperative evaluation, it was observed that the stoma was at the umbilicus level, above the skin level, outside the visual field, between the skin folds and the presence of a stoma baguette. The patient was discharged after two trainings with the information of the baguette removal time. The patient who presented to the emergency general surgery outpatient clinic 14 days after discharge with the complaint of inability to fasten the stoma bag was taken to the observation room and referred to the stoma and wound care nurses. The patient was evaluated and diagnosed with

irritant dermatitis in the peristomal area and DET score was calculated as 10 points (Figure 1a). It was also observed that the patient had mucocutaneous separation at the 5 o'clock position and a 3 cm tunnel under the skin. For these reasons, the stoma adapter system could not be applied to the patient. The damaged skin of the patient was cleaned with saline, a cream containing 40% zinc was applied to the wound area, and the intestinal contents were aspirated. Stoma care was performed in the patient who was followed up with aspiration system and showed partial healing of the peristomal skin (DET Score: 8), but no success was achieved (Figure 2a). On the 17th day of treatment, the first successful stoma care (DET Score: 4) was performed (Figure 3a). Care approach;

- Peristomal skin was cleaned. A protective layer was created with a barrier tissue.
- Stoma powder was applied to the area with mucocutaneous separation.
- A silver drape was placed in the tunnel under the skin.
- Skin folds and the area on the silver drape were filled with stoma paste.
- In addition to the convex adapter-bag system, care was performed with a stoma belt and stoma corset.
- C tape was used around the stoma adapter.

The patient was discharged on the 20th day of treatment and followed up with weekly care after discharge. On the 30th day, complete healing of the peristomal skin problem (DET Score: 0) was observed (Figure 4a). The patient has a 1 cm wound in the mucocutaneous separation area.




Figure 1a **Figure 1b** **Figure 1c** **Figure 1d**

**Written permission was obtained from the patients for the use of the case report and pictures.*

Case 2: A 52-year-old female patient with a BMI of 41. The patient, who underwent surgery for ovarian CA in December 2019 at an external center and had a permanent colostomy, presented to the general surgery outpatient clinic in May 2020 with the complaint of a wound on the peristomal skin. The patient was referred to the stoma and wound care nurses. In the first evaluation of the patient, it was observed that the stoma was at the skin level, at the umbilicus level, within the visual field, away from the skin folds and had a 4 * 3 * 0.5 cm wound in the

peristomal area (DET score: 10). It was determined that the wound in the peristomal area started after chemotherapy and the patient used a convex adapter for stoma care. Care approach for the wound cleaned with saline (0.09 NaCl);

1. Care Approach (Methods applied in patient follow-up for 3 months with weekly evaluations)

- Peristomal skin was cleaned. An antibacterial silver cover /alginate cover was placed on the wound area.
- Hydrocolloid dressing was placed on the silver dressing. The wound area was isolated from the stoma with the help of stoma paste.
- Care was performed with a convex adapter-bag system.
- C tape was used around the stoma adapter (DET score: 7 at the end of the process).

2. Care Approach (Methods applied in patient follow-up for 1 month with weekly evaluations)

- Peristomal skin was cleaned.
- The use of silver cover was discontinued due to the formation of hypergranulated tissues in the wound area. Hypergranulated areas were burned with a silver nitrate pen. To control the wound exudate, a sterile sponge suitable for the wound size was placed and hydrocolloid dressing was placed on it. The wound area was isolated from the stoma with the help of stoma paste.
- Convex adapter use was discontinued and stoma care was performed with a flat adapter bag system.
- “C tape (Moon Tape)” was used around the stoma adapter (DET score: 7 at the end of the process).

3. Care Approach (Methods applied in patient follow-up for 2 months with weekly evaluations)

- Peristomal skin was cleaned.
- The use of a silver nitrate pen was terminated when the hypergranulated tissues in the wound area reached the skin level.
- Due to the increase in wound exudate, sterile sponge application was terminated and absorbent foam was applied to the wound area. The wound area was isolated from the stoma with the help of hydrocolloid dressing and stoma paste.
- Care was continued with a flat adapter bag system.
- C tape was used around the stoma adapter.

At the end of the 6th month, the DET score was calculated as 0 with the healing of the wound in the peristomal area without any surgical intervention. We continue to follow the patient with monthly follow-up visits.

Figure 2a **Figure 2b** **Figure 2c** **Figure 2d**

**Written permission was obtained from the patients for the use of the case report and pictures.*

Case 3: Our 59-year-old male patient had a BMI of 23.5. The patient, who was operated on for colon CA in March 2020 and had a temporary ileostomy, presented to the general surgery outpatient clinic in January 2021 with the complaint of wounds and itching on the peristomal skin. The patient was referred to the stoma and wound care nurses and in the initial evaluation of the patient, it was observed that the stoma was located in the loop ileostomy, at the skin level, at the level of the umbilicus, within the visual field, away from the skin folds, and pseudovaricous lesions were observed in the peristomal environment (DET score: 11). It was determined that the individual with stoma cut the adapter large for maintenance. During the follow-up period, the individual was trained again about cutting the adapter according to the stoma diameter.

Care approach (Weekly assessments and methods applied in patient follow-up for 1 month)

- Peristomal skin was cleaned.
- Pseudovaricular lesions (hypergranulated areas) in the peristomal area were burned with a silver nitrate pen.
- Stoma care was performed with barrier spray and a flat adapter bag system.
- Weekly evaluation and care approach was repeated.

After 1 month of follow-up, the DET score was calculated as 0 with the healing of the wound in the peristomal area without any surgical intervention. We continue the follow-up of the patient with monthly controls.


Figure 3a **Figure 3b**

**Written permission was obtained from the patients for the use of the case report and pictures.*

Discussion

This series of case studies illustrates the management and care pathways and outcomes of peristomal skin complications that individuals with stomas may encounter. A systematic review article reported that the incidence of peristomal skin complications after ostomy surgery ranged from 36.3% to 73.4%, and the literature supports these complication rates.[8,9] In a multinational study of 5187 individuals with ostomies, although half of the participants reported peristomal skin complications based solely on discoloration, other peristomal skin complications such as pain, itching and burning, as well as leakage, bleeding and ulcerated/sensitive skin, were reported to be significantly higher.[10]

In one of the two cases with ileostomy in this case series, skin complications were observed in the area far from the skin fold and in the area close to the skin folds in the other. Necessary interventions and care were performed by the stoma and wound care nurse and good results were achieved. Severe peristomal skin complications in ileostomy are due to the higher risk of peristomal skin wrinkles or folds. In such cases, patient follow-up should be performed after the first few weeks postoperatively, as the risk of complications is expected to increase over time. This approach helps to improve outcomes, especially for those with ileostomies and challenging skin contours, leading to improved quality of life for the patient.[11,12]

The incidence of peristomal skin complications is closely related to the segment of the intestine where the stoma is opened. The severity of peristomal skin complications is also related to stoma type and stoma duration. The incidence of complications in end colostomy and transfers colostomy has been reported to be lower than in loop ileostomy.[11,13] Although there are no comprehensive prevalence studies on this subject in our country, Karadağ et al. prospectively examined individuals with a stoma who applied to five stoma therapy units and reported that the most common complication was peristomal skin complications; the rate of complication development was 21% in patients whose stoma area was marked before surgery

and 74% in patients without marking.[14] Nurse experts reported that the highest complication rate was peristomal skin complications.[5] The patient who presented with the complaint in case 1 was diagnosed with irritant dermatitis in the initial evaluation. In other studies, irritant dermatitis has been reported in 50.7% of patients.[11] A study of 4235 people with stomas in 13 countries revealed that factors such as age, gender when surgery was performed, type of stoma, and leakage affect the risk of peristomal skin complications. It has also been reported that greater awareness of risk factors will positively affect healthcare expenditures.[9]

Peristomal skin complications that develop due to the inability of individuals with a stoma to perform stoma care appropriately and correctly or due to many reasons are still encountered intensively. Good nursing care is needed to prevent or improve these complications. Therefore, stoma and wound care nurses have very important duties. Appropriate management of these complications plays a fundamental role in improving patient quality of life. Educating both patients and their relatives about stoma care at home can reduce the rate of these complications. A multidisciplinary approach as well as increased patient education and empowerment are priority measures to be implemented to promote value-based healthcare.

Conflict of Interests

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

Source of Institutional and Financial Support

No financial and/or moral support has been received from any pharmaceutical company, a company that provides and/or manufactures medical devices, equipment and materials, or any commercial organisation that is directly or indirectly related to the research that constitutes the content of this study, which may adversely affect the decision to be made regarding the study.

Author contributions

Concept/Idea: RK, HFK; Design: RK, HB; Consultancy: HB, HFK; Data Collection and/or Data Processing: RK, CÇ, HB; Analysis and/or Interpretation: RK, HB; Source scanning: RK, HB; Writing of the article: RK, CÇ, HB, HFK; Critical review: RK, HB, HFK

Acknowledgments

The authors thank all patients who participated in the study.

References

1- Tsujinaka S, Tan KY, Miyakura Y, Fukano R, Oshima M, Konishi F, Rikiyama T. Current management of intestinal stomas and their complications. Journal of the anus, rectum and colon. 2020;4(1):25-33.
2- Black P, Notter J. Psychological issues affecting patients living with a stoma. British Journal of Nursing. 2021;30(6):S20-S32.
3- Petersén C, Carlsson E. Life with a stoma—coping with daily life: Experiences from focus group interviews. Journal of clinical nursing. 2021;30(15-16):2309-2319.
4- Karadağ A, Goçmen Baykara Z. Ostomili Bireyin Bakımı. In: Atabek Aştı T, Karadağ A. Hemşirelik Esasları: Hemşirelik Bilim ve Sanatı. Akademi Basın ve Yayıncılık, İstanbul: 2016. S. 1014-1055.
5- Colwell JC, McNichol L, Boarini J. North America wound, ostomy, and continence and enterostomal therapy nurses current ostomy care practice related to peristomal skin issues. J Wound Ostomy Continence Nurs. 2017;44(3):257-261.doi:10.1097/won.0000000000000324
6- Harputlu D, Özsoy SA. Stoma çevresi cilt komplikasyonlarının tanılanmasında bir araç: peristomal cilt aracı. Florence Nightingale Hemşirelik Dergisi. 2016;24(1):38-48.
7- Altınbaş Y. Peristomal Cilt Problemleri: Sistematik Literatür İnceleme. Sürekli Tıp Eğitimi Dergisi. 2018;27(2):107-117.
8- Taneja C, Netsch D, Rolstad BS, Inglese G, Eaves D, Oster G. Risk and Economic Burden of Peristomal Skin Complications Following Ostomy Surgery. J. Wound Ostomy Cont. Nurs. 2019;46:143–149.
9- Voegeli D, Karlsmark T, Eddes EH, Hansen HD, Zeeberg R, Håkan-Bloch J, Hedegaard CJ. Factors influencing the incidence of peristomal skin complications: Evidence from a multinational survey on living with a stoma. Gastrointest. Nurs. 2020;18:31–38
10- Fellows J, Voegeli D, Håkan-Bloch J, Herschend NO, Størling Z. Multinational survey on living with an ostomy: prevalence and impact of peristomal skin complications. British Journal of Nursing. 2021;30(16):22-30.
11- Salvadalena G, Colwell JC, Skountrianos G, Pittman J. (2020). Lessons learned about peristomal skin complications: secondary analysis of the ADVOCATE trial. Journal of Wound Ostomy & Continence Nursing. 2020;47(4):357-363.
12- D'Ambrosio F, Pappalardo C, Scardigno A, Maida A, Ricciardi R, Calabro GE. Peristomal skin complications in ileostomy and colostomy patients: what we need to know from a public health perspective. International journal of environmental research and public health. 2022;20(1):79.
13- Mutlu S, Gültekin FA. Preoperatif stoma yerinin işaretlenmesinin, postoperatif stoma komplikasyonları, stomaya adaptasyon ve hasta yaşam kalitesi üzerine etkisi. BEÜ. Tıpta Uzmanlık Tezi. Zonguldak. 2017.
14- Karadağ A, Baykara ZG. Stomalı bireylerin özerkliklerini kullanabilme durumları. turkiye klinikleri Journal of Medical Ethics-Law and History. 2012;20(1):16-23.