Peristomal Medical Adhesive Related Skin Injury (MARSI): a new observation

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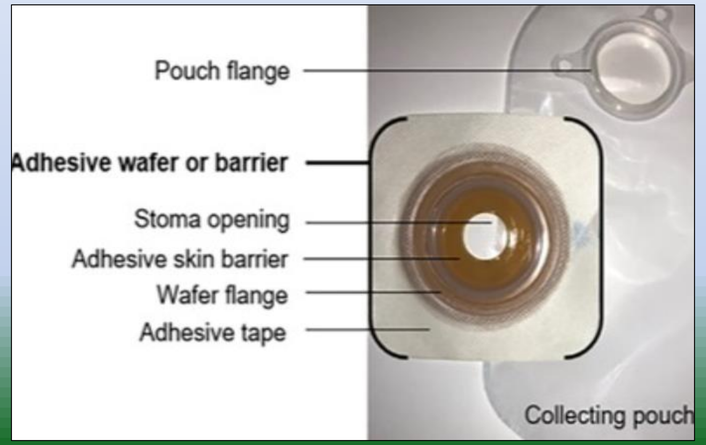
BACKGROUND

Peristomal Medical Adhesive Related Skin Injury (MARSI) is a known entity that can drastically affect patient quality of life after the surgical creation of an ostomy. It is believed that about 80 percent of patients with a newly created ostomy will experience stomal or peristomal complications within the first 2 years. Erythema, skin erosion or tears, bullae or vesicles caused by adhesive ostomy pouching appliances are considered peristomal MARSI. MARSI is caused when the skin-to-adhesive attachment is stronger than the skin cell-to-cell attachment. As a result, the epidermal layers separate from the dermis. Adhesive removal results in the detachment of varying amounts of superficial epidermal cell layers.

CASE SERIES

We observed three patients with peristomal epidermal damage at the first ostomy appliance change after laparoscopic ostomy creation. Of note, the ostomy appliance in all patients was applied after desufflation of abdomen and closure of incisions in the operating room. Standard ostomy appliances available at our institution were used. In all three cases, peristomal skin damage, as shown in the figure was seen at the first ostomy appliance change. MARSI occurred under the border adhesive tape component of the appliance and not the hydrocolloid adhesive skin barrier. These findings were reported by our ostomy nurses. The skin damage in all patients was managed with local wound care and subsequently resolved.





DISCUSSION

Peristomal MARSI generally develops over a few months of ostomy adhesive appliance use. It is rarely observed within the first 1-2 days of ostomy appliance use. In our cases, the peristomal skin damage was related to the tape border and not the hydrocolloid ring immediately surrounding the stoma. We hypothesize that this may result from residual inflation or stretch of the skin of the abdominal wall as a result of pneumoperitoneum which subsequently improves after the first few days after laparoscopic surgery. Skin tearing is painful and greatly impacts patient satisfaction. We suggest that the protective paper covering the adhesive tape border be left in place following laparoscopic ostomy surgery, which might prevent this complication. As the hydrocolloid adhesive skin barrier immediately surrounding the stoma is the most important component of the seal, the nursing staff can remove the protective paper backing from the adhesive tape border later.

REFERENCES

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