Peristomal verrucous plaque

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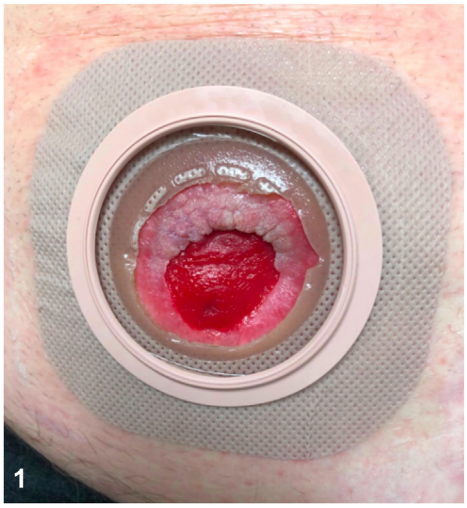

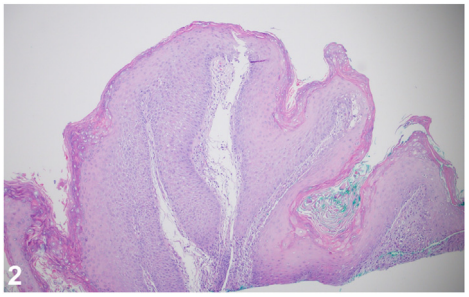

HISTORY

A 78-year-old male presented with an asymptomatic skin change around his urostomy stoma site present for 1 year. Six years prior to presentation, he had undergone a radical cystectomy and ileal conduit for bladder carcinoma. He was referred by his urologist out of concern for cutaneous malignancy. Review of systems was unremarkable, and the patient reported normal function of his urostomy. A computed tomography scan of his chest, abdomen, and pelvis revealed no evidence of metastatic disease. Physical exam revealed a macerated verrucous plaque on the superior aspect of the stoma (Fig 1).

Question 1: What is the most likely diagnosis?

A. Peristomal squamous cell carcinoma

B. Pseudoverrucous irritant peristomal dermatitis

C. Peristomal pyoderma gangrenosum

D. Allergic contact dermatitis

E. Cutaneous candidiasis

Answers:

A. Peristomal squamous cell carcinoma — Incorrect. Peristomal squamous cell carcinoma is a rare entity occurring in sites of chronic inflammation and presenting with an ulcerated, friable papulonodule. It has rarely been reported with urostomies.

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The patient gave consent for photographs and medical information to be published in print and online with the understanding that this information may be publicly available.

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B. Pseudoverrucous irritant peristomal dermatitis — Correct. Pseudoverrucous irritant peristomal dermatitis (PIPD) is a subset of irritant dermatitis which presents as verrucous papules and plaques surrounding a stoma site. The proposed pathogenesis of urostomy-related PIPD begins with chronic exposure to alkaline urine leading to uric acid deposition in the peristomal skin. Chronic inflammation results in epidermal hyperplasia and hyperkeratosis that can clinicopathologically mimic verrucae.[1]

C. Peristomal pyoderma gangrenosum — Incorrect. Peristomal pyoderma gangrenosum is often misdiagnosed as contact dermatitis, irritant dermatitis from leaking urine or feces, extension of underlying Crohn disease, or a wound infection.[2] Primarily reported in patients with inflammatory bowel disease, it presents with painful, well-demarcated ulcers with erythematous to violaceous rolled borders with undermining.

D. Allergic contact dermatitis — Incorrect. Allergic contact dermatitis (or ACD) is a type IV hypersensitivity reaction which manifests as pruritic, erythematous papules and plaques that can become edematous and vesiculobullous in severe cases. If ACD is suspected, topical corticosteroids can provide relief and patch testing should be performed to determine the cause.

E. Cutaneous candidiasis — Incorrect. Peristomal skin is moist and warm, constituting an ideal environment for yeast proliferation. Stoma leakage can lead to maceration and an impaired epidermal barrier. Immunocompromised conditions will contribute to this complication.[3] It often presents with thin erythematous plaques with satellite papulopustules.

Question 2: Which histopathological findings are associated with this condition?

A. Dense, neutrophil-predominant mixed inflammatory infiltrate with focal necrosis and hemorrhage

B. Nodular or diffuse noncaseating granulomatous dermatitis

C. Verrucous acanthotic hyperplasia, variable spongiosis, hyperkeratosis, and parakeratosis

D. Nests of glassy, eosinophilic keratinocytes with hyperchromatic nuclei and squamous pearls extending into the dermis

E. Regular acanthosis, confluent parakeratosis, intraepidermal collections of neutrophils, and thinning of suprapapillary plates

Answers:

A. Dense, neutrophil-predominant mixed inflammatory infiltrate with focal necrosis and hemorrhage — Incorrect. This description would be expected for pyoderma gangrenosum.

B. Nodular or diffuse noncaseating granulomatous dermatitis — Incorrect. This is suggestive of cutaneous Crohn's disease.[4]

C. Verrucous acanthotic hyperplasia, variable spongiosis, hyperkeratosis, and parakeratosis — Correct. These findings are suggestive of the patient's diagnosis of PIPD (Fig 2).

D. Nests of glassy, eosinophilic keratinocytes with hyperchromatic nuclei and squamous pearls extending into the dermis — Incorrect. This would be consistent with squamous cell carcinoma.

E. Regular acanthosis, confluent parakeratosis, intraepidermal collections of neutrophils, and thinning of suprapapillary plates — Incorrect. These findings are consistent with psoriasis.

Question 3: What would be the best first initial step in management?

A. Applying topical steroids.

B. Surgical excision of affected area.

C. Treat with liquid nitrogen.

D. Daily consumption of cranberry juice.

E. Ensure a tight seal and refitting the appliance as needed.[2,5]

Answers:

A. Applying topical steroids — Incorrect. Topical steroids can be temporarily utilized for associated pruritus but would not be the first choice in management.

B. Surgical excision of affected area — Incorrect. Excision of the affected area is usually reserved for severe cases that have not responded adequately to other forms of management.

C. Treat with liquid nitrogen — Incorrect. A commonly used modality in the treatment of verruca vulgaris or warts, cryotherapy would not be effective in this case.

D. Daily consumption of cranberry juice — Incorrect. This is a simple way for patients to neutralize alkalosis urine, as cranberry juice serves to both dilute the urine and to keep its pH at approximately

6. This can be done in addition to other primary interventions.

E. Ensure a tight seal and refitting the appliance as needed — Correct. The best first step would be to closely evaluate the urostomy site and determine whether an adequate seal is present in multiple positions (such as upright, recumbent, and prone). An effective seal will prevent the urine from irritating the peristomal skin. In severe cases, topical corticosteroids can be useful along with acidic skin barriers and topical barrier films to further ensure a tight seal.[2,5]

Abbreviation used:

ACD: allergic contact dermatitis
PIPD: pseudoverrucous irritant peristomal dermatitis

Conflicts of interest

None disclosed.

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