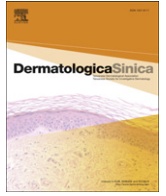




Contents lists available at SciVerse ScienceDirect

Dermatologica Sinica

journal homepage: <http://www.derm-sinica.com>

RESIDENT'S FORUM

Multiple erythematous erosive papules and nodules on the perianal area of an 84-year-old bedridden woman

Case report

An 84-year-old woman presented with a 6-month history of multiple painful cutaneous papulonodules on the buttocks and perianal area. She had underlying dementia and was bedridden. She had urine incontinence and encopresis for > 10 years. The patient initially developed papules around the anus. She did not undergo any systemic or topical treatment, and the papules gradually enlarged to papulonodules after 6 months. Her family did not report any history of topical skin contact. Physical examination showed many flat-topped erosive erythematous papules and nodules on the perianal region (Figure 1). The rapid plasma reagin and *Treponema pallidum* hemagglutination tests yielded negative results. Bacterial culture did not yield any microbial growth. A skin biopsy showed psoriasiform acanthosis with a moderate infiltrate of lymphoplasmic cells and neutrophils in the papillary and upper dermis. Koilocytic changes and fungal hyphae were not observed in the epidermis (Figure 2).

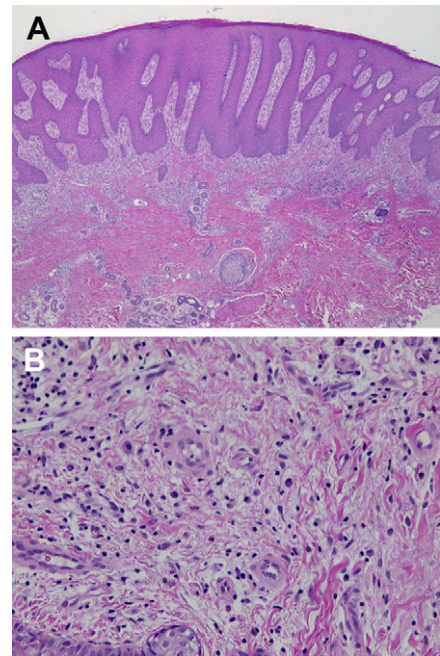


Figure 2 (A) Psoriasiform acanthosis and a moderate infiltrate were noted in the upper dermis (H&E staining; 40 \times). (B) An infiltrate of mixed-type inflammatory cells, including neutrophils, eosinophils, lymphocytes, and plasma cells, was observed in the upper dermis (H&E; 400 \times). H&E = hematoxylin–eosin.



Figure 1 Multiple shiny, flat-topped, erosive, erythematous papules and nodules are densely set on the perianal region.



Figure 3 The perianal lesions almost faded after 3 weeks treatment with zinc oxide on the right buttock and betamethasone ointment on the left buttock.

Diagnosis

Erosive papulonodular dermatosis.

Discussion

Erosive papulonodular dermatosis is an uncommon variant of irritant contact dermatitis involving the urogenital area. The term “erosive papulonodular dermatosis” was first proposed by Robson et al in 2006.¹ Erosive papulonodular dermatosis comprises three subgroups: perianal pseudoverrucous papules and nodules (PPPN), granuloma gluteale, and Jacquet's erosive dermatitis. These three subgroups were previously considered as 3 distinct entities related to irritant contact dermatitis.

PPPN is a rare type of irritant contact dermatitis that was first noticed around urostomy sites.² The term PPPN was proposed by Goldberg et al in 1992.³ These skin lesions are believed to be associated with reactive dermatitis, secondary to chronic irritation due to feces or urine.³ The common clinical manifestation of PPPN is the development of shiny, smooth, red, and moist lesions on the genital or perianal area; these lesions are flat-topped, round, and 2–8 mm in diameter.³ The clinical appearance of PPPN is similar to that of granuloma gluteale; however, a greater number of verrucous lesions are observed in granuloma gluteale than in PPPN.⁴ The histopathological features of PPPN include spongiotic psoriasiform dermatitis and acanthosis, without significant dermal inflammatory infiltrate.³ By contrast, the histopathological features of granuloma gluteale include epidermal hyperplasia and a dense superficial deep dermal infiltrate, with a variable degree of dilation and proliferation of blood vessels. Jacquet's erosive dermatitis, which is considered as another variant of severe irritant contact dermatitis, is clinically characterized by erosions with an elevated border. Nonspecific chronic inflammation is not observed on microscopic analysis.

Overlaps are observed in the clinical appearances of PPPN, granuloma gluteale, and Jacquet's erosive dermatitis. Rodriguez-Poblador et al considered these three distinct entities as manifestations of a single disease.⁵ Robson et al reported two cases of perigenital erosive papulonodular lesions.¹ Multiple specimens were obtained from different parts of the lesions, and the histopathological findings overlapped with those for PPPN, granuloma gluteale, and Jacquet's erosive dermatitis. The authors have suggested that these three diseases are part of a disease continuum. Therefore, the new term “erosive papulonodular dermatosis” was coined to include all three variants of irritant contact dermatitis.¹

Our patient had papules, nodules, and erosion on the perianal area and had a long-term contact history with urine and feces. The clinical differential diagnosis may include bacterial infections, PPPN, granuloma gluteale, cutaneous Crohn's disease, Langerhans cell histiocytosis, halogenodermas, Jacquet's erosive dermatitis,

metastases, cutaneous lymphomas, pyoderma vegetans, pemphigus vegetans, orificial tuberculosis, sporotrichosis, and condylomas. Bacterial culture and rapid plasma reagin yielded negative results. Skin biopsy showed psoriasiform acanthosis and a moderate dermal infiltrate with mixed inflammatory cells. The histopathological features could not be categorized as typical for any of the following entities: PPPN, granuloma gluteale, and Jacquet's erosive dermatitis. The patient was diagnosed with erosive papulonodular dermatosis on the basis of the clinical and pathological findings.

The treatment strategy for erosive papulonodular dermatosis involves the removal of irritants.³ Thus, timely changing of diapers is the most effective treatment for this condition. To determine whether any additional benefits could be obtained with topical steroid treatment, our patient received 3 weeks topical zinc oxide treatment for the left buttock and topical high-potency steroid treatment with 0.1% betamethasone valerate for the right buttock. The perianal lesions gradually faded, with residual erythema on the buttocks (Figure 3).

We have reported this case to emphasize the importance of including erosive papulonodular dermatosis in the differential diagnosis of papulonodular lesions that develop on the perigenital or perianal areas of patients who have a long-term contact history with feces and/or urine.

Yung-Yi Lee, Jui-Hung Ko, Yi-Chin Shih*

Department of Dermatology,
Chang Gung Memorial Hospital,
Taipei, Taiwan

* Corresponding author. Yi-Chin Shih,
No. 199, Dunhua North Road, Songshan District,
Taipei City 105, Taiwan, ROC.

Tel.: +886 2 27135211 3397; fax: +886 2 27191623.
E-mail address: samshih@adm.cgmh.org.tw (Y.-C. Shih)

References

1. Robson KJ, Maughan JA, Purcell SD, et al. Erosive papulonodular dermatosis associated with topical benzocaine: a report of two cases and evidence that granuloma gluteale, pseudoverrucous papules, and Jacquet's erosive dermatitis are a disease spectrum. *J Am Acad Dermatol* 2006;**55**:S74–80.
2. Borglund E, Nordstrom G, Nyman CR. Classification of peristomal skin changes in patients with urostomy. *J Am Acad Dermatol* 1988;**19**:623–8.
3. Goldberg NS, Esterly NB, Rothman KF, et al. Perianal pseudoverrucous papules and nodules in children. *Arch Dermatol* 1992;**128**:240–2.
4. Askin Ü, Ada S, Bilezikçi B, Arda S. Erosive papulonodular dermatosis in an adolescent with encopresis. *Br J Dermatol* 2008;**158**:413–5.
5. Rodriguez-Poblador J, Gonzalez-Castro U, Herranz-Martinez S, Luelmo-Aguilar J. Jacquet erosive diaper dermatitis after surgery for Hirschsprung disease. *Pediatr Dermatol* 1998;**15**:46–7.

Received: Apr 14, 2011

Revised: Jul 31, 2011

Accepted: Sep 5, 2011