

# Extramammary Paget's disease

## *Harbinger of internal malignancy*

**Emily K Kozera, Steven Kossard,  
John W Frew**

### CASE

A woman aged 49 years presented with a 12-month history of an enlarging painless but pruritic perianal plaque 2 cm from the anal verge (Figure 1). She had no significant past medical history with no regular medications or allergies. She denied a history of genital human papillomavirus or any other sexually transmitted infections. Treatment from the general practitioner (GP) consisted of topical methylprednisolone and topical clotrimazole for 14 days with no appreciable effect. The patient denied bleeding, pain, discomfort or irritation to the plaque from bowel motions or wiping the area. Examination revealed a 4 cm diameter pale, discoloured plaque to the 9 o'clock perianal region (Figure 1). No satellite lesions, surrounding erythema, ulceration or superficial scaling were noted.

Histopathology revealed cytokeratin 7 (CK7; Figure 2), carcinoembryonic antigen and epithelial membrane antigen positive clear cells, and cytokeratin 20 negative clear cells, throughout the epidermis in a pagetoid distribution (Figure 3). These cells were confined to the epidermis with no dermal extension.

Colonoscopy identified and removed a 10 mm diameter recto-sigmoid tubovillous adenoma. Chest-abdomen-pelvis computed tomography (CT) revealed no evidence of internal malignancy. The cutaneous plaque was treated with 12 weeks of topical imiquimod, with complete resolution by the completion of therapy.

gradually enlarging erythematous patch,<sup>1</sup> although it can also present as weepy erosions, lichenified plaques and nodules.

### ANSWER 2

Diagnosis is often delayed given the similarities between EMPD and other common inflammatory skin conditions

### QUESTION 1

What is the diagnosis?

### QUESTION 2

What are some reasons for a delayed diagnosis, and why is this significant?

### QUESTION 3

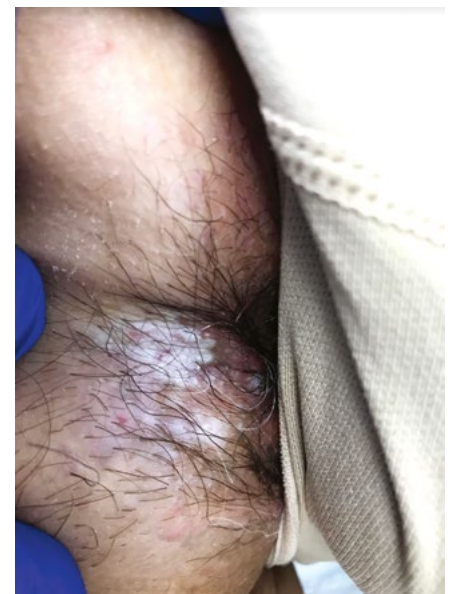
How can the diagnosis be confirmed?

### QUESTION 4

What management should be instituted once diagnosis is confirmed?

### ANSWER 1

Extramammary Paget's disease (EMPD) is a rare intraepithelial adenocarcinoma, the pathophysiology of which is not completely understood.<sup>1</sup> The most common manifestation of EMPD is an asymptomatic or mildly pruritic patch or plaque found on the anogenital skin. The lesion is typically a well-demarcated,



**Figure 1.** Verrucous perianal plaque 2 cm from the anal verge

such as eczema, psoriasis or tinea, with empiric topical treatment often delaying skin biopsy, which reveals the underlying diagnosis. As such, when evaluating adults with recalcitrant anogenital dermatitis it is crucial that EMPD is considered as a differential diagnosis. This is significant as EMPD may be a harbinger for current or future internal malignancy.<sup>2</sup>

### ANSWER 3

Diagnosis of EMPD should be confirmed with a punch biopsy of the lesion, which can normally be performed by the GP or dermatologist. Histopathological examination typically demonstrates intraepidermal atypical pale-staining, pagetoid cells that may display mucinosis or glandular differentiation with positive CK7 staining.<sup>3</sup>

### ANSWER 4

Once a diagnosis of EMPD is made, extensive investigations evaluating for the presence of underlying malignancy (directed by, but not exclusive to, the site of cutaneous presentation) is essential.<sup>2</sup> Age- and sex-appropriate malignancy screening (eg mammography, cervical screening test, pelvic ultrasonography, colonoscopy and cystoscopy) should be completed. Consideration should also be made of investigation with imaging such as CT of the chest, abdomen and pelvis or positron emission tomography scan.

EMPD is usually treated surgically with wide local excision of the lesion.<sup>4</sup>

However, there are no consensus guidelines regarding surgical margins, and excision is associated with a recurrence rate of 30–61%.<sup>2</sup> Mohs micrographic surgery demonstrates reduced recurrence rates of 8–12.2%<sup>5</sup> as well as increased amounts of spared tissue and reduced cosmetic and functional disruption of the anogenital region.<sup>2</sup> Non-surgical options for management of EMPD include topical chemotherapy (imiquimod cream), photodynamic therapy and radiotherapy. Long-term close monitoring of the patient is vital to assess for disease recurrence, associated indicators of internal malignancy and lymphadenopathy.<sup>2</sup>

### Authors

Emily K Kozera BMedSc, MD, MPH, Research Registrar, Department of Dermatology, Liverpool Hospital, Liverpool, NSW

Steven Kossard MBBS, BS, FACD, PhD, Hon FRCPA, Director of Dermatopathology, Kossard Dermatopathologists, Macquarie Park, NSW

John W Frew MBBS (Hons), MMed (ClinEpi), FACD, Consultant Dermatologist, Department of Dermatology, Liverpool Hospital, Liverpool, NSW; Ingham Institute of Applied Medical Sciences, Liverpool, NSW; University of NSW, Sydney, NSW

Competing interests: None.

Funding: None.

Providence and peer review: Not commissioned, externally peer reviewed.

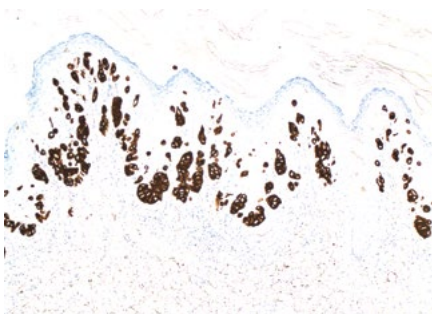
### Correspondence to:

emily.kozera@health.nsw.gov.au

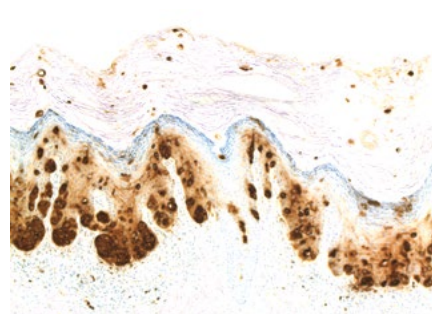
### References

1. Bologna JL, Schaffer JV, Cerroni L. *Dermatology*. 4th edn. Amsterdam, NL: Elsevier, 2018; p. 1252.
2. Simonds RM, Segal RJ, Sharma A. Extramammary Paget's disease: A review of the literature. *Int J Dermatol* 2019;58(8):871–79. doi: 10.1111/ijd.14328.

3. Hutchings D, Windon A, Assarzagdegan N, Salimian KJ, Voltaggio L, Montgomery EA. Perianal Paget's disease as spread from non-invasive colorectal adenomas. *Histopathology* 2021;78(2):276–80. doi: 10.1111/his.14218.
4. Ngan V, Chen Q. Extramammary Paget disease of skin. Hamilton, NZ: DermNet NZ, 2020. Available at [www.dermnetnz.org/topics/extramammary-paget-disease](http://www.dermnetnz.org/topics/extramammary-paget-disease) [Accessed 9 February 2021].
5. Kim SJ, Thompson AK, Zubair AS, et al. Surgical treatment and outcomes of patients with extramammary Paget disease: A cohort study. *Dermatol Surg* 2017;43(5):708–14. doi: 10.1097/DSS.0000000000001051.



**Figure 2.** Cytochrome 7 positive staining



**Figure 3.** Carcinoembryonic antigen and epithelial membrane antigen positive cells and cytochrome 20 negative cells throughout the epidermis in a pagetoid distribution

correspondence [ajgp@racgp.org.au](mailto:ajgp@racgp.org.au)