CASE REPORT

Extramammary Paget's disease of the Vulva

Paschalis Gavriilidis,¹ Konstantinos Chrysanthopoulos,² Domniki Gerasimidou³¹Department of Surgical Oncology, Theageneio Anticancer Hospital, Thessaloniki, Greece²Department of Gynaecologic Surgical Oncology, Theageneio Anticancer Hospital, Thessaloniki, Greece³Department of Pathology, Theageneio Anticancer Hospital, Thessaloniki, Greece**Correspondence to**

Paschalis Gavriilidis, pgavriilidis@yahoo.com

SUMMARY

Vulvar Paget's disease is an extremely rare neoplasm that accounts for less than 1% of the vulvar malignancies. We present a case of a 75-year-old woman, who had an eczematoid lesion involving the labia majora and minora bilaterally, with infiltration to the clitoris. Enlarged non-fixed lymph nodes were palpable in the inguinal region bilaterally. A biopsy of the vulva showed Paget's disease. She underwent radical vulvectomy with bilateral inguinal lymph node dissection. The patient remained disease free at 6-month follow-up.

BACKGROUND

Vulvar Paget's disease originates from the apocrine-gland bearing skin cells or it may be an associated manifestation with malignancies originating from the Bartholin's gland, the urinary bladder and the rectum.¹

CASE PRESENTATION

A 75-year-old woman was suffering from eczematoid and erythematous rash and itching of the genitalia for about 1.5 years, felt embarrassed to consult a doctor, but was forced by her immense feeling of itching during the past 6 months to consult a gynaecologist. She presented with an eczematoid lesion of the labia majora and minora extending to the clitoris (figure 1).

On physical examination, the vaginal wall was intact; enlarged non-fixed lymph nodes were palpable in the inguinal region bilaterally. A breast examination and mammography were unremarkable. A Pap smear and cystoscopy were normal. Colonoscopy also was normal.

An abdominal and pelvic CT scan revealed enlarged inguinal lymph nodes bilaterally. The serum carcinoembryonic antigen (CEA), serum carbohydrate antigen 125 (CA-125) and squamous cell carcinoma antigen (SCC-Ag) levels were normal.

Biopsy resulted in a diagnosis of Paget's disease based on haematoxylin-eosin staining and the immunohistochemical profile (negative Melan-A and positive cytokeratin 7).

She underwent a radical vulvectomy with bilateral inguinal lymph node dissection (figures 2 and 3). Histopathological diagnosis was Paget's disease (figure 4). Her recovery was uneventful and discharged on the 15th postoperative day.

INVESTIGATIONS

Suitable investigations may include pelvic ultrasound, hysteroscopy, laparoscopy, MRI of the pelvis, colonoscopy, cystoscopy, mammogram and chest X-ray.

Figure 1 Erythematous eczematoid bilateral vulvar lesion.

DIFFERENTIAL DIAGNOSIS

Extramammary Paget's disease (EMPD) is often undiagnosed for years as it can mimic contact or irritant dermatitis, intertrigo, seborrheic dermatitis, tinea cruris, candidiasis, inverse psoriasis or Bowen's disease.

TREATMENT

Standard therapy is complete surgical excision with 2–5 cm safety margin or Mohs micrographic surgery (MMS).

OUTCOME AND FOLLOW-UP

The patient is doing well 7 months postoperatively and is scheduled for a follow-up examination every 3 months (figure 3).

Figure 2 Operative image after the bilateral inguinal lymph node dissection and modified radical vulvectomy.

CrossMark

To cite: Gavriilidis P, Chrysanthopoulos K, Gerasimidou D. *BMJ Case Rep* Published online: [please include Day Month Year] doi:10.1136/bcr-2013-200623

Figure 3 A follow-up image 45 days after the operation.

DISCUSSION

In 1889, R Crocker first diagnosed EMPD of the penis and the scrotum.² EMPD accounts for less than 1% of the vulvar malignancies and it usually occurs in patients older than 60 years.³ The precise pathogenesis and cell origin of EMPD remains controversial. Apocrine and eccrine ductal and glandular cells, pluripotent keratinocyte stem cells, and Toker cells have all been considered as possible cells of origin of EMPD.^{4–5} Based on pathogenic mechanisms, EMPD is classified as primary (intraepidermal) or secondary.

Paget's disease of the vulva has recently been subclassified based on the origin of the neoplastic cells.

- ▶ Type 1 is of primary vulvar cutaneous origin.
- ▶ Type 2 is a manifestation of an associated adjacent primary anal or rectal adenocarcinoma.
- ▶ Type 3 is a manifestation of bladder (urothelial) neoplasia.⁶

The most common presenting symptoms of EMPD are pruritus and a pink eczematoid lesion with hyperkeratosis.³ The thick vulvar skin, leading to the impression of leukoplakia with the cake icing effect is pathognomonic for Paget's disease.

An associated underlying malignancy may appear in 12–33% of the cases, therefore all patients should be thoroughly investigated for occult metastases.⁷

Figure 4 H&E staining indicating Paget cells into the epidermis.

Topical creams, radiotherapy and surgery are used in combination for the management of EMPD.

Topical treatment using imiquimod 5% has been reported to produce remissions in small tumours but not in all.^{8–9} Other options include 3.5% bleomycin, 5-fluorouracil, CO₂ laser and radiotherapy.

Standard therapy is complete surgical excision with 2–5 cm safety margin or MMS.¹⁰ Recurrence rate after a standard surgical excision range from 33% to 62.5% vs 16% to 28% after Mohs surgery.^{11–12}

Systemic therapy also has been used to treat advanced EMPD when surgery and radiation are contraindicated.³

A 5-year relative survival for invasive EMPD is 91.2%.¹³

Learning points

- ▶ Persistence of vulvar itching needs early biopsy.
- ▶ Extramammary Paget's disease is associated with other malignancies in 25% of the cases.
- ▶ The recurrence rate is high; therefore patients should be examined every 3 months after the surgery for the next 2 years, after which annual follow-ups are recommended.

Contributors PG and KC managed the patient and searched the literature, DG studied the surgical specimen as pathologist, and contributed in search of the literature.

Competing interests None.

Patient consent Obtained.

Provenance and peer review Not commissioned; externally peer reviewed.

REFERENCES

- 1 Nikura H, Yoshida H, Ho K, *et al*. Paget's disease of the vulva: clinicopathologic study of type 1 cases treated at a single institution. *Int J Gynecol Cancer* 2006;16:1212–15.
- 2 Crocker HR. Paget's disease affecting the scrotum and penis. *Trans Pathol Soc Lond* 1888–1889;40:187–91.
- 3 Zollo JD, Zeitouni NC. The Roswell Park Center Cancer Institute experience with Extramammary Paget's disease. *Br J Dermatol* 2000;142:59–65.
- 4 Lloyd L, Flanagan AM. Mammary and extramammary Paget's disease. *J Clin Pathol* 2000;53:742–9.
- 5 Willman JH, Golitz LE, Fitzpatrick JE. Vulvar clear cells of Toker: precursors of extramammary Paget's disease. *Am J Dermatopathol* 2005;27:185–8.
- 6 Wilkinson EJ, Brown HM. Vulvar Paget disease of urothelial origin: a report of three cases and a proposed classification of vulvar Paget disease. *Hum Pathol* 2002;33:549–54.
- 7 Chandra JJ. Extramammary Paget's disease: prognosis and relationship to internal malignancy. *J Am Acad Dermatol* 1985;13:1009–14.
- 8 Feldmeyer L, Kerl K, Kamarashev J, *et al*. Treatment of vulvar Paget disease with topical imiquimod: a case report and review of the literature. *J Dermatol Case Rep* 2011;5:42–6.
- 9 Jin on SC, Izumi AK. Extramammary Paget disease: failure to respond to topical imiquimod 5%. *J Am Acad Dermatol* 2011;65:656–7.
- 10 Kyriazanos ID, Stamos NP, Miliadis L, *et al*. Extramammary Paget's disease of the perianal region: a review of the literature emphasizing the operative management technique. *Surg Oncol* 2011;20:61–71.
- 11 Boehringer A, Leiter U, Metzler G, *et al*. Extramammary Paget's disease: extended subclinical growth detected using three-dimensional histology in routine paraffin procedure and course of the disease. *Dermatol Surg* 2011;37:1417–26.
- 12 Hendi A, Brodland DG, Zitelli JA. Extramammary Paget's disease: surgical treatment with Mohs micrographic surgery. *J Am Acad Dermatol* 2004;51:767–73.
- 13 Van der Zwan JM, Siesling S, Blokx WA, *et al*. Invasive extramammary Paget's disease and the risk of secondary tumours on Europe. *Eur J Surg Oncol* 2012;38:214–21.

Copyright 2013 BMJ Publishing Group. All rights reserved. For permission to reuse any of this content visit <http://group.bmj.com/group/rights-licensing/permissions>.
BMJ Case Report Fellows may re-use this article for personal use and teaching without any further permission.

Become a Fellow of BMJ Case Reports today and you can:

- ▶ Submit as many cases as you like
- ▶ Enjoy fast sympathetic peer review and rapid publication of accepted articles
- ▶ Access all the published articles
- ▶ Re-use any of the published material for personal use and teaching without further permission

For information on Institutional Fellowships contact consortiasales@bmjgroup.com

Visit casereports.bmj.com for more articles like this and to become a Fellow