

Case Report

Paget's Disease of Anus: A Case Report

Sheng-Bin Chen

Wei-Jei Lee

Department of Surgery, Min-Sheng General Hospital, Taoyuan, Taiwan

Key Words

Paget's disease;

Anogenital

Extramammary Paget's disease is a rare cutaneous carcinoma which usually presented as an anogenital lesion in the elderly. We presented a case arising in a 54-year-old man, in which the Paget's disease was diagnosed after hemorrhoidectomy, and discuss the clinical, pathological features and types of treatment.

[*J Soc Colon Rectal Surgeon (Taiwan) 2009;20:69-73*]

Extramammary Paget's disease (EMPD) is a neoplasm affecting mainly the anogenital region in elderly.¹ Because of the rarity of the disease, little is known about its prognostic factors and optimal treatment.^{2,3} With regard to treatment, neither the method nor the extent of the surgical excision has been standardized because of the anatomical complexity of anogenital lesions. Although recent reports have suggested the potential usefulness of lymph nodes biopsy in EMPD, the management of enlarged regional lymph nodes in patients with invasive EMPD is controversial.^{4,5} In this report, we presented a male patient who underwent hemorrhoidectomy and Paget's disease in hemorrhoid was found incidentally.

Case Report

This 54-year-old male presented with difficult defecation associated with prolapsed anal mass in recent one year. In addition, defecation bleeding was found off and on. Grossly, no perianal skin lesion, such as erythematous or eczematous change, was noted. No rectal mass was identified by the digital

rectal examination. Mixed hemorrhoid was noted by the anoscopic examination. Before surgery, the laboratory report showed no anemia or other biochemistry abnormality. The patient underwent hemorrhoidectomy on May 2nd, 2008 and then discharged smoothly.

However, the microscopic examination of the specimen showed a picture of nests of tumor cells in the epithelia. The tumor cells have abundant pale cytoplasm, round to oval nuclei and positive for Mucicarmine stain. It proved the diagnosis of Paget's disease (Figs. 1 and 2).

On July 4th, 2008, the Panendoscopic and Colonofiberscopic examinations were performed for possible internal malignancy. No definite mucosal lesion was found from the study. The patient is regularly follow-up and no evidence of local recurrence 6 months after operation.

Discussion

Mammary Paget's disease is caused by the epidermotropic spread of underlying tumor cells, whe-

Received: December 25, 2008. Accepted: July 24, 2009.

Correspondence to: Dr. Sheng-Bin Chen, Department of Surgery, Min-Sheng General Hospital, No. 168, Jin-Kuo Rd., Taoyuan, Taiwan. Tel: +886-3-317-9599 ext. 2007; Fax: +886-3-316-4299; E-mail: m001130@e-ms.com.tw

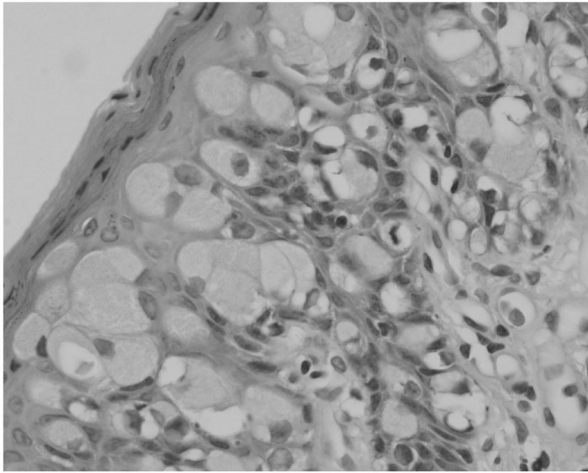


Fig. 1. H&E stain: Paget cells with atypical round or oval nuclei and abundant basophilic, amphophilic or clear cytoplasm

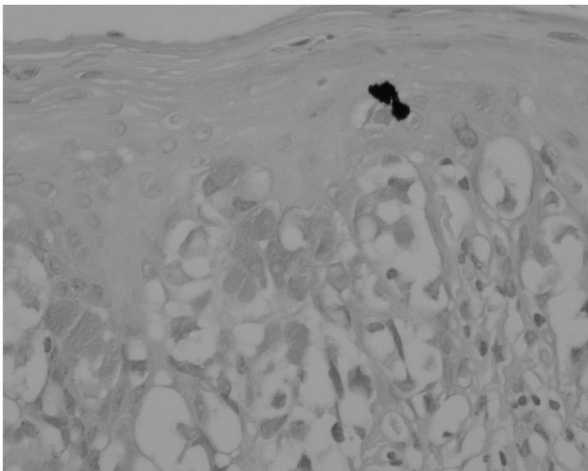


Fig. 2. Intraepidermal Paget cells showing positive Mucicarmine staining

reas Extramammary Paget's disease (EMPD) probably arises from intraepithelial cells of sweat gland origin. It was George Thin, in 1881, who was the first to describe the cytological features of Paget's cells, which appeared microscopically as large rounded cells with abundant pale-staining cytoplasm and a large nucleus that is often displaced to the periphery of the cells.⁶ Grow et al. report a 76% association of perianal Paget's disease with adjacent or bowel carcinoma.⁷

Typically, the lesion is seen as a progressive, erythematous, eczematoid plaque. In addition, cell

markers may enhance diagnostic accuracy.⁸ Most EMPD cases stain positive for CEA (carcinoembryonic antigen), EMA (epithelial membrane antigen), CK (cytokeratin)⁷. Cases associated with internal malignancy usually stain positively for CK20.^{9,10} In this reported patient, positive staining of mucicarmine, EMA (Fig. 3) and CK7 (Fig. 4) enhance the diagnosis of EMPD. In spite of the positive staining of CK20, no definite internal malignancy is identified. Furthermore, the negative staining of HMB-45 excludes the differential diagnosis of melanoma (Fig. 5).

The association of visceral malignancy with

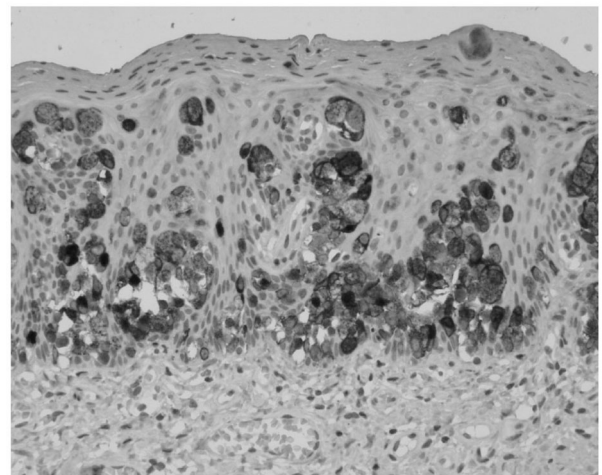


Fig. 3. Intraepidermal Paget cells showing strong membranous and cytoplasmic staining with an antibody to EMA

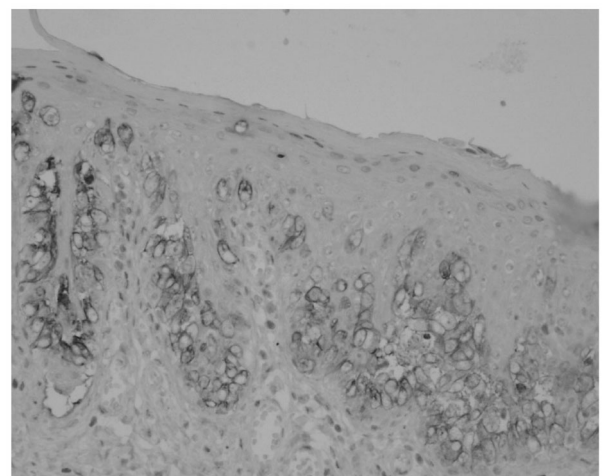


Fig. 4. Intraepidermal Paget cells showing strong membrane staining with antibody to CK7

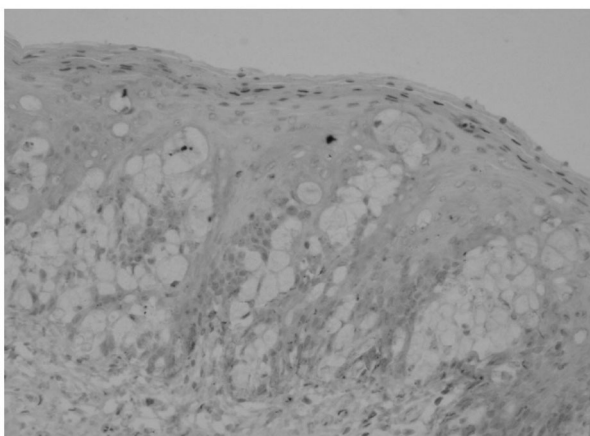


Fig. 5. Intraepidermal Paget cells do not react with HMB-45

EMPD is well established but the exact relationship is not well understood. It has been associated with carcinoma of the bladder, colon, kidney and prostate.^{11,12} The perianal disease is more likely associated with colorectal malignancy.

Surgical excision is the standard treatment. In the absence of invasive carcinoma, wide excision is the treatment of choice. For more advanced lesions, an abdominoperineal resection, along with inguinal lymph node dissection if positive lymph nodes are present, will be necessary. Whether preoperative chemoradiation is helpful remains unknown. Because of the commonly delayed diagnosis (average 4 years), around 25% of patients with Paget's disease in this region already have metastases.

However, EMPD usually affects elderly patients and radiation therapy provides an alternative therapy, especially for the patients who may not tolerate surgery. The reported dose of radiotherapy used by Moreno-Arias *et al* ranged from 40 to 50 Gy and was strongly recommended, as a lower radiotherapeutic dose was associated with a higher risk of recurrence.¹³⁻¹⁸

For in-situ lesions, the prognosis is usually good. However, EMPD may become invasive and metastize through lymphatic system. A patient with invasive perianal Paget's disease has a poor prognosis even abdominoperineal resection performed, since distant metastasis has already occurred at the time of diagnosis. In order, the sites of the metastases are the ingui-

nal and pelvic lymph nodes, liver, bone, lung, brain, bladder, prostate, and adrenal gland.¹⁹ Even after the standard treatment of surgical excision, the lesion may recur and that long-term check-ups may be necessary. The follow-up should be at half-year intervals. Greater vigilance would be recommended especially in those with evidence of dermal invasion, or younger age at presentation.²⁰

In summary, we present a case of prolapsed hemorrhoid containing Paget's disease. In spite of no internal malignancy identified, long-term follow-up is essential to detect local recurrence and development of invasive Paget's disease.

References

1. Shepherd V, Davidson EJ, Davies-Humphreys J. Extramammary Paget's disease. *BJOG* 2005;112:273-9.
2. Goldblum JR, Hart WR. Vulvar Paget's disease: a clinicopathologic and immunohistochemical study of 19 cases. *Am J Surg Pathol* 1997;21:1178-87.
3. Tsutsumida A, Yamamoto Y, Minakawa H. Indications for lymph node dissection in the treatment of extramammary Paget's disease. *Dermatol Surg* 2003;29:21-4.
4. Hatta N, Morita R, Yamada M. Sentinel lymph node biopsy in patients with extramammary Paget's disease. *Derma Surg* 2004;30:1329-34.
5. Levenback C, Burke TW, Morris M. Potential applications of intraoperative lymphatic mapping in vulvar cancer. *Gynecol Oncol* 1995;59:216-20.
6. Tjandra J. Perianal Paget's disease. Report of three cases. *Dis Colon Rectum* 1998;31:462-6.
7. Grow JR, Kshirsagar V, Tolentino M. Extramammary perianal Paget's disease: A report of a case. *Dis Colon Rectum* 1997;20:436-42.
8. Anthony PP, Freeman K, Warin AP. Extramammary Paget's disease. *Clin exp Dermatol* 1986;11:387-95.
9. Brown RS, Lankester KJ, McCormack M. Radiotherapy for perineal Paget's disease. *Clin Oncol (R Coll Radiol)* 2002; 14:272-84.
10. Ramalingam P, Hart WR, Goldblum JR. Cytokeratin subset immunostaining in rectal adenocarcinoma and normal anal glands. *Arch Pathol Lab Med* 2001;125:1074-7.
11. Ojeda VJ, Heenan PJ, Waston SH. Paget's disease of the groin associated with adenocarcinoma of the urinary bladder. *J Cutan pathol* 1987;14:227-31.
12. Salamania J, Benito A, Garcia-Penalver C. Paget's disease of the glans penis secondary to transitional cell carcinoma of the bladder: a report of 2 cases and a review of the literature. *J Cutan Pathol* 2004;31:341-5.

13. Besa P, Rich TA, Delclos L. Extramammary Paget's disease of the perineal skin: role of radiotherapy. *Int J Radiat Oncol Biol Phys* 1992;24:73-8.
14. Moreno-Arias GA, Conill C, Castells-Mas A. Radiotherapy for genital extramammary Paget's disease in situ. *Dermatol Surg* 2001;27:587-90.
15. Burrows NP, Jones DH, Hudson PM. Treatment of extramammary Paget's disease by radiotherapy. *Br J Dermatol* 1995; 132:970-2.
16. Moreno-Arias GA, Conill C, Sola-Casas MA. Radiotherapy for in situ extramammary Paget's disease of the vulva. *J Dermatolog Treat* 2003;14:119-23.
17. Brown RS, McCormack M, Lankester KJ. Spontaneous ap-
parent clinical resolution with histologic persistence of a case of extramammary Paget's disease: response to topical 5-fluorouracil. *Cutis* 2000;66:454.
18. Luk NM, Yu KH, Yeung WK. Extramammary Paget's disease: outcome of radiotherapy with curative intent. *Clin Exp Dermatol* 2003;28:360-3.
19. Helwig EG, Graham JH. Anogenital (extramammary) Paget's disease. A clinicopathological study. *Cancer* 1963;16: 387-403.
20. Tor W, Chiu, Pauline SY Wong, Kawser Ahmed, Stephanie CK Lam, Shun Y Ying, Andrew Burd. Extramammary Paget's Disease in Chinese males: A 21-year Experience. *World J Surg* 2007;31:1941-6.

病例報告

肛門之 Paget's disease：病例報告

陳盛斌 李威傑

桃園敏盛綜合醫院 外科部

乳房外之 Paget's disease 爲一罕見之皮膚癌症，尤其好發於年老病人的肛門或生殖部位。本病例爲一 54 歲男性病人，於痔瘡切除手術後，病理檢查意外發現爲一乳房外 Paget's disease。本篇則進一步討論乳房外 Paget's disease 的臨床及病理表現，以及治療方式。

關鍵詞 Paget's disease、肛門或生殖部位。