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Case Report

Pathology Section

Extramammary Paget's Disease of Vulva in a Postmenopausal Woman: a Case Report

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ABSTRACT

Paget's disease of the vulva is a rare disease. It can present as a primary lesion or as a secondary lesion. When present as a secondary lesion, it is associated with adenocarcinoma originating from local organs such as urethra, or rectum. Patients generally tend to be of postmenopausal age group. We report a case of a 49-year-old postmenopausal woman who presented with the complaints of a slow growing lesion in the vulval region associated with itching. Biopsy from vulval lesion showed presence of pagetoid cells in the epidermis. The sub-classification of vulvar Paget's disease is essential for correct clinical management and treatment. Immunohistochemistry may help in the diagnosis and assessing tumour progression and invasion.

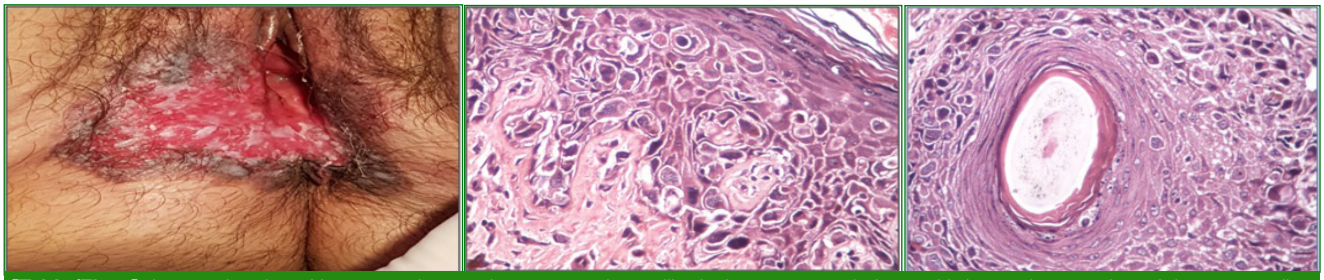
Keywords: Hyperpigmentation, Pagetoid cells, Vulval lesion

CASE REPORT

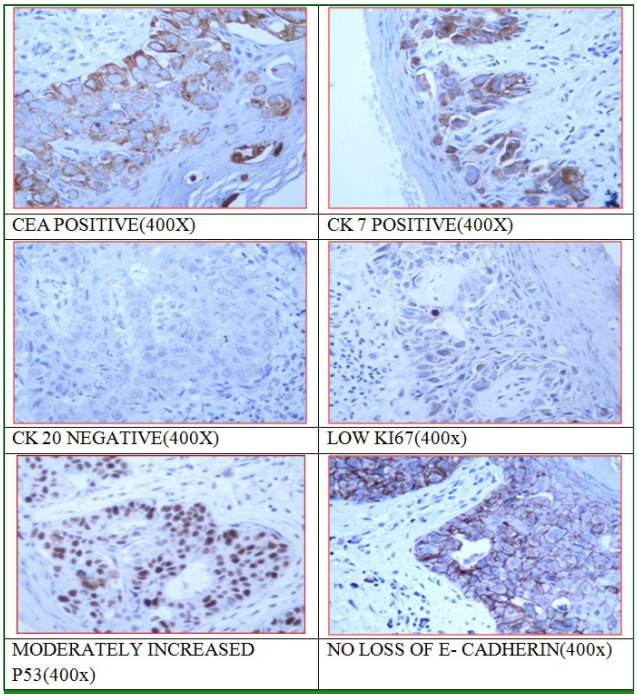
A 49-year-old postmenopausal woman presented with the complaints of itching, passage of white discharge per vaginum and a slow growing lesion in the vulva for three years. The patient has received course of antibiotics and topical corticosteroids. On examination, a 5x4 cm erosive, erythematous plaque like lesion was noted in the vulva along with hyperpigmentation of the surrounding skin and white spots on the surface. No induration, bleeding or lymphadenopathy was seen [Table/Fig-1]. On examination, cervix was normal. Routine hematological, biochemical and radiological investigations were within normal limits. Patient was given anti-fungal treatment, but did not show any improvement. Clinically, diagnosis of Zoon's vulvitis, erosive lichen planus, Paget's disease of vulva was made.

Histopathological examination of the biopsy from vulval lesion showed presence of pagetoid cells, both singly and in clusters in the epidermis with focal involvement of hair follicles and eccrine glands. The pagetoid cells showed abundant eosinophilic, clear to amphophilic cytoplasm, round to oval vesicular nuclei, opened up chromatin and small nucleoli [Table/Fig-2,3]. However, no evidence of subepithelial or stromal invasion was seen. On imunohistochemistry, pagetoid cells were positive for CK7 and CEA and were negative for CK20. These cells also showed low Ki67 index, moderately increased p53 and no loss of E-cadherin [Table/Fig-4]. Immunostaining for Her-2/neu was negative. Thus, the diagnosis of primary cutaneous Paget's disease of vulva without invasion was given. The patient was treated with wide local resection. The patient is presently in sixth month of follow-up without any recurrence or new lesion.

This case is presented with the consent of the patient.



[Table/Fig-1]: Image showing 5X4 cm erosive, erythematous, plaque like lesion was noted along with hyperpigmentation of the surrounding skin and white spots on the surface. **[Table/Fig-2]:** Biopsy from vulva showed presence of pagetoid cells singly or in clusters in the epidermis. pagetoid cells showed abundant eosinophilic, clear or amphophilic cytoplasm, round /oval vesicular nucleus, open chromatin and small nucleoli. **[Table/Fig-3]:** Focal involvement of hair follicles and eccrine glands by pagetoid cells.



[Table/Fig-4]: On imunohistochemistry, pagetoid cells were CEA positive, CK7 positive and CK20 negative. These cells also showed low ki-67 index , moderately increased p53, no loss of E-cadherin .

DISCUSSION

Extramammary Paget's disease of vulva is an uncommon disease accounting for less than 1% vulvar malignancies [1]. It usually affects postmenopausal women, more frequently between the ages of 50 and 80 years [2]. Vulvar Paget's disease can be classified based on the origin of the neoplastic paget cells as either primary, arising within the epidermis or underlying skin appendages and secondary, originating from an underlying non/cutaneous adenocarcinoma, most commonly anorectal adenocarcinoma, and urothelial carcinoma of the bladder or urethra, carcinoma of the cervix, ovary or endometrium [3]. An underlying neoplasm therefore should be ruled out by pelvic examination, colposcopy, radiological and histopathological examination.

Vulvar Paget's disease originates in vulvar apocrine-gland bearing skin cells or as a manifestation of adjacent primary anal, rectal or bladder adenocarcinoma [4]. The pathogenesis however, is unclear. Toker cells have been described as precursor cells responsible for mammary and extramammary Paget's disease. Toker cells have been described in mammary like glands of the vulva [5].

Features suggestive of tumour progression and invasion are increased expression of p53, cyclin D1 and increased Ki67 with reduced expression of E-cadherin [6-8]. The present case was non invasive with low Ki67 and normal E- cadherin expression.

Her-2/neu protein is found to be over expressed in 5% to 80% of cases of both invasive and non-invasive Paget's disease of vulva. Significant improvement of such cases was seen with Trastuzumab [9]. However, immunostaining for Her-2/neu was negative in the present case.

Even with negative margins, recurrences are possible. The overall rate of recurrence is 30% and can occur years after removal of primary lesion [10].

The treatment of choice of non invasive Paget's disease is margin controlled wide surgical excision of affected area to an adequate depth. Wide surgical excision was performed in this case and the patient is disease free till present date.

Mohs micrographic surgery or wide local excision is an approach. It allows maximal tissue sparing [11]. Invasive disease can be treated with wide partial or total vulvectomy with inguinal-femoral nodal assessment followed by radiotherapy or chemotherapy [12]. Other modalities include photodynamic therapy, topical fluorouracil and imiquimod 5% cream [4].

CONCLUSION

Paget's disease of the vulva remains a rare disease. Small foci of pagetoid cells may be missed on histological examination. Therefore, immunohistochemistry is important for diagnosis of such rare cases and in predicting tumour progression and invasion.

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