HPV related malignancy : Vaginal carcinoma at young age

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Abstract:
A 48 year old Indo-Fijian female presented with irregular vaginal bleeding for 3 years. On office examination she was diagnosed with carcinoma of vagina stage I and this was confirmed on histology. She underwent radical hysterectomy, upper vaginectomy and pelvic lymphadenectomy.

Introduction :

Carcinoma of the vagina tends to occur in the upper part of the vagina and appears to be related to HPV infection in most cases [1]. The rate of vaginal cancer increases substantially after 65 years of age ,thus it has primary been thought of as a disease of older women.

Case Report :

A 48 year old para 3 female presented to our gynaecological outpatient department with complaints of irregular vaginal bleeding for 3 years. She had history of postcoital bleeding but did not complain of vaginal discharge.

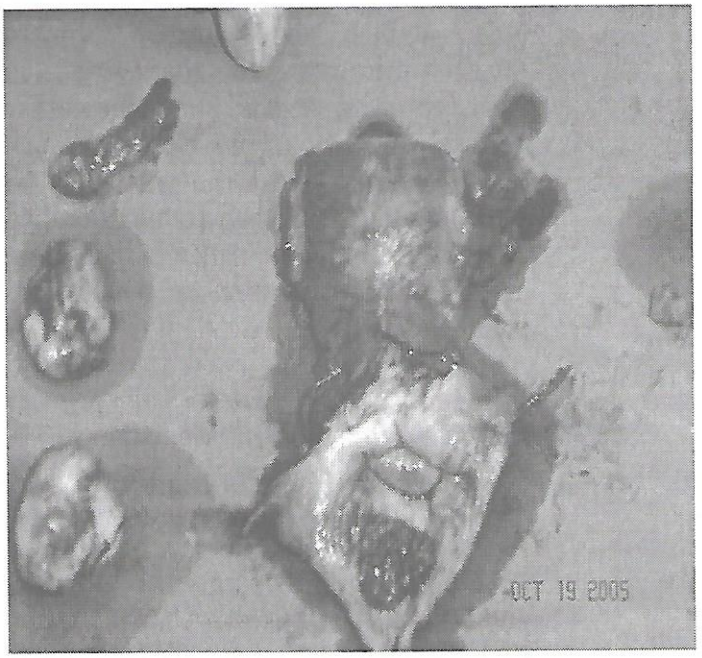
She was sexually active since the age of 21 years and had 3 lifetime sexual partners. She had never had a pap smear.

Physical examination revealed a circular, 1-2 cm red exophytic lesion, well circumscribed, on the right posterior vaginal wall, and bleeding on touch.

The cervix was normal and completely separate from the lesion. The uterus was of normal size, and on recto-vaginal examination the tumor appeared to be confined to the vagina, with no palpable extension of the tumour into parametrial tissues or the rectum.

Clinically she was diagnosed as carcinoma vagina stage I . A punch biopsy confirmed the squamous cell carcinoma. She was HIV negative.

She underwent radical hysterectomy ,upper vaginectomy and pelvic lymphadenectomy. Intraoperatively the right external iliac and internal iliac lymph nodes were enlarged to 2-3 cm and consistent with tumor metastasis. The nodes were separable from the pelvic sidewall vessels and all enlarged nodes were completely removed. On the left side all the lymph nodes were of normal size and only a few lymph nodes were sampled, given that she would need adjuvant radiotherapy based on the metastatic nodes.



Normal Cervix

Growth on posterior vaginal wall

Histology confirmed the diagnosis of squamous cell carcinoma with metastasis to right external and internal iliac lymph nodes.

Her postoperative recovery was uneventful except that she required urinary catheterisation for about one month.

She was recommended adjuvant chemoradiotherapy but unfortunately it is not available locally and needed overseas referral.

Discussion :

Primary vaginal carcinoma is rare, constituting only 1-2% of all malignant gynecological tumors. Squamous carcinoma begins in the epithelial lining of the vagina, most often in the area closest to the cervix . It occurs mainly in

older women and data on primary invasive carcinoma of the vagina by Benedet et al [2] has shown that the disease primarily affects elderly women as 63% were found to be older than 60 years of age. Although frequent among older women, the incidence is increasing among younger women as seen in our patient.

In a retrospective review [3] of primary invasive carcinoma of the vagina 89% had squamous cell carcinoma and 11% adenocarcinoma.

As reported by Ikenberg et al [4] in 1990 and Ostraw et al in 1988 [5], identification of HPV DNA in squamous cell cancer cells by in situ hybridization (21%) and southern blot hybridization (56%) strongly suggests an association with HPV infection and a possible role of HPV in the pathogenesis of vaginal squamous cell carcinoma.

Daling et al [6] in a population-based study concluded that in situ and invasive vaginal neoplasia have many of the same risk factors as cervical cancer, including a strong relationship to HPV infection. Unfortunately we could not perform HPV testing in our case due to financial constraints. But she did have some of the risk factors for HPV infection such as number of sexual partners.

Vaginal cancer can be effectively treated, and when found at an early stage, is often curable. Therapeutic alternatives depend on stage; surgery or radiation therapy is highly effective in early stages, while radiation therapy is the primary treatment of more advanced stages [7,8] .Taking into consideration her age and clinical stage, as well as available treatment modalities in Fiji, the surgical option was chosen.

In 1981, Al-Kurdi and coworkers [9] reported that 28.6% of patients had pelvic lymph node involvement upon diagnosis. Our patient did have lymph node involvement confimed on histology and was advised to undergo adjuvant chemoradiotherapy.

We recommend regular pap smear testing, with close inspection not only of the cervix during the examination, but also to the vulva and vagina, in an attempt to diagnose these malignancies earlier as well. Particularly in patients with irregular or post-coital bleeding vaginal cancer must be considered in the differential diagnosis. It is possible that the epidemiology of HPV-associated cancer is changing and that younger patients will be diagnosed more frequently with vulvar and vaginal cancers, so the clinician's attention to this possibility is important.

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