

Condyloma acuminata induces focal intense FDG uptake mimicking vaginal stump recurrence from uterine cervical cancer: a case report

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Summary

The 2-deoxy-2-[¹⁸F] fluoro-D-glucose position emission tomography/computed tomography (FDG PET/CT) findings of condyloma acuminata in a patient with FIGO Stage IB1 cervical cancer who had previously been treated with radical hysterectomy, pelvic chemoradiotherapy, and consolidation chemotherapy is described in this article. This case highlights the importance of considering condyloma acuminata during the differential diagnosis of abnormal vaginal FDG uptake in patients who have been treated for gynecological cancer.

Key words: FDG PET/CT; Condyloma acuminata; Cervical cancer; Recurrence.

Introduction

The immune status of patients is reported to be an important factor for the progression of condyloma acuminata [1-4]. Thus, impaired immunity induced by intensive cancer treatments may allow the patient's human papilloma virus (HPV) infection to persist and favor the development of genital condyloma acuminata. The authors present a case of condyloma acuminata occurring in a cervical cancer patient that showed a focal intense FDG uptake mimicking vaginal stump recurrence.

Case Report

A 31-year-old woman with FIGO Stage IB2 squamous cell carcinoma of the uterine cervix had been treated with radical hysterectomy followed by pelvic concurrent chemoradiotherapy, plus consolidation chemotherapy. Two months after the completion of these initial treatments, she underwent 2-deoxy-2-[¹⁸F] fluoro-D-glucose position emission tomography/computed tomography (FDG PET/CT) as part of a routine follow-up program. As shown, FDG PET/CT detected intense vaginal FDG uptake, which was highly indicative of vaginal stump recurrence (Figure 1A). On physical examination, she was found to have a one cm friable, irregular, and pigmented mass, which was limited to the vaginal stump. Biopsies of the lesion revealed squamous epithelial proliferation (Figure 2A), with prominent papillomatosis and koilocytotic cells close to the surface, which were consistent with condyloma acuminata (Figure 2B). A human papilloma virus (HPV) genotyping test was positive for the HPV 6 and 11 subtypes. As none of the other clinical or radiological findings indicated recurrent cervical cancer, the authors concluded that the vaginal FDG uptake had been caused by the condyloma acuminata. She was treated with laser therapy followed by ten weeks of topical 5% imiquimod cream. On another FDG PET/CT conducted six weeks after the eradication of the condyloma acuminata, the abnormal focal uptake detected in the first examination

had completely disappeared (Figure 1B). The patient is currently free of disease.

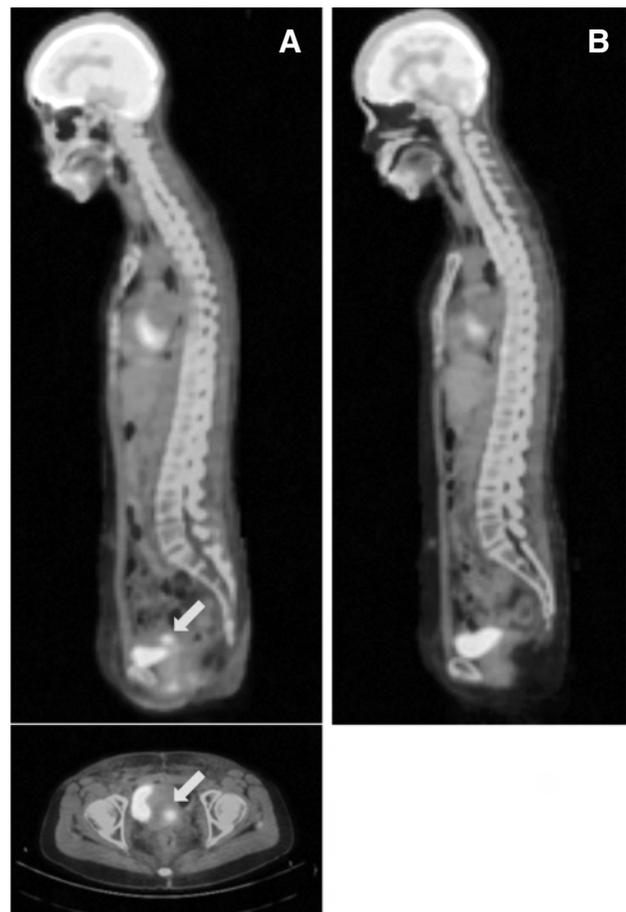


Figure 1. — FDG PET/CT fusion images obtained at the time of the diagnosis of condyloma acuminata (A), and six weeks after eradication of the condyloma acuminata (B).

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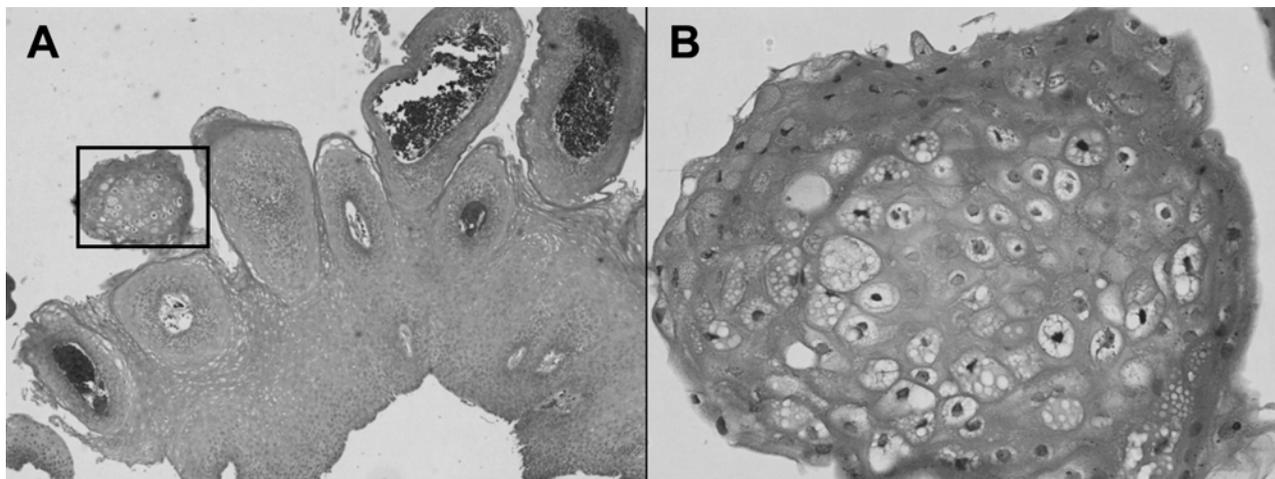


Figure 2. — Condyloma acuminata on vaginal punch biopsy (hematoxylin-eosin staining, A; original magnification x 40, B; original magnification x 200).

Discussion

Condyloma acuminata, which commonly develop as genital or perianal lesions, are induced by infection with certain types of HPV, usually HPV-6 or HPV-11 [5]. The immune status of patients is reported to be an important factor for the progression of condyloma acuminata [1-4]. According to previous reports, anal condyloma recur more frequently in patients that are immunosuppressed, including HIV-infected, transplanted patients, and those undergoing immunosuppressive chemotherapy, compared to those with a competent immune system [1, 2]. Similarly, the frequent recurrence of genital condyloma in HIV-infected women or in women receiving corticosteroid therapy has also been reported [3, 4]. In the present case, the impaired immunity induced by intensive initial treatments might have allowed the patient's HPV infection to persist and favor the development of condyloma acuminata.

Although there have been a few reported cases in which genital condyloma acuminata developed in gynecological cancer patients after treatment with pelvic radiotherapy or systemic chemotherapy [6, 7], none of them included FDG PET/CT imaging findings. Thus, to the best of the authors' knowledge, this is the first paper to report FDG PET/CT findings of condyloma acuminata. FDG PET/CT is reported to be a reliable modality for assessing uterine cervical cancer recurrence [8]; however, cases in which the false-positive accumulation of FDG in necrotic, inflammatory, or hypermetabolic lesions was mistaken for recurrent cervical cancer have also been reported [9, 10]. The present case highlights the importance of considering condyloma acuminata during the differential diagnosis of abnormal vaginal FDG uptake in gynecological cancer patients that have undergone intensive treatments that have the potential to induce immunosuppression.

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