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Case Report

Post-transplant lymphoproliferative disorder of the cervix

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Abstract

Background. Post-transplant lymphoproliferative disorder involving the female genital tract is a rare event.

Case. A 67-year-old female status post orthotopic liver transplant 5 years previously for hepatitis B and sarcoidosis presented with vaginal bleeding. Endometrial biopsy revealed a high-grade malignant tumor with immunologic marker studies consistent with lymphoma. The patient underwent an exploratory laparotomy, modified radical hysterectomy, bilateral salpingo oophorectomy, bilateral selective pelvic and para-aortic lymphadenectomy, and omentectomy. Final pathology confirmed monomorphic B-cell post-transplantation lymphoproliferative disorder consistent with non-Hodgkin's B cell lymphoma confined to the endocervix and lower uterine segment. She remains recurrence free after 4 years with no adjuvant therapy.

Conclusion. Post-transplant complications can present in the female reproductive organs. Gynecologic oncologists need to be aware of this disease process when treating patients for gynecologic symptoms after transplant surgery.

Keywords: Post-transplant lymphoproliferative disorder; Epstein–Barr virus; Cervix

Introduction

As solid organ and bone marrow transplantation procedures continue to expand worldwide, our understanding of the diagnosis and management of complications associated with these procedures continues to evolve. Post-transplant lymphoproliferative disorder (PTLD) is a spectrum of proliferative lymphatic diseases that is thought to include all Epstein–Barr virus (EBV) related post-transplant complications [1]. This group of disorders represents a potentially fatal syndrome that can occur either early or late after transplant with 47% of cases occurring in the first 6 months and 90% of cases within 5 years [1]. Patients often present with localized or disseminated lymphomatous lesions with a wide range of clinical manifestations from those resembling infectious mononucleosis to signs and symptoms of septic shock [2].

Although the majority of PTLD occurs within nodal sites, up to 40% of patients present with symptomatic masses at extranodal organs including lung, kidney, liver, stomach, intestine, bone, central nervous system, eye, skin, and the transplanted organ itself [3,4]. Of the extranodal sites, there has been a paucity of literature regarding PTLD affecting gynecologic organs. Whether this is due to underreporting or to the extreme rarity of this phenomenon remains unknown. We provide the first description of an EBV negative PTLD of the cervix in a patient following solid organ transplant.

Case report

A 67-year-old female presented to her gynecologist with vaginal bleeding. She had a history of liver failure secondary to sarcoidosis and hepatitis B infection and was status post an

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orthotopic liver transplant procedure 5 years prior. The patient had experienced chronic rejection and was currently taking tacrolimus 5 mg daily. Her past medical history was also significant for coronary artery disease and hypertension for which she was on aspirin and norvasc daily. Gynecologic history was significant for endometrial polyps in the past and she had a negative Pap smear 3 months prior to presentation. A transvaginal ultrasound revealed a slightly irregular, inhomogeneous enlarged uterus. No clear cavity or endometrial thickness could be discerned. On physical exam, polypoid tissue was present in the endocervical canal which was removed and sent to pathology. In addition, an office endometrial curettage was performed.

The cervical and endometrial tissue samples both revealed high-grade malignant tumor with immunohistochemical staining consistent with monomorphic B-cell PTLD. EBV detection by in-situ hybridization of EBV-encoded RNA was negative.

A CT scan of the chest, abdomen, and pelvis was performed which was unremarkable for extrauterine disease. The liver, spleen, pancreas, and adrenals were within normal limits and there was no appreciable lymphadenopathy. The

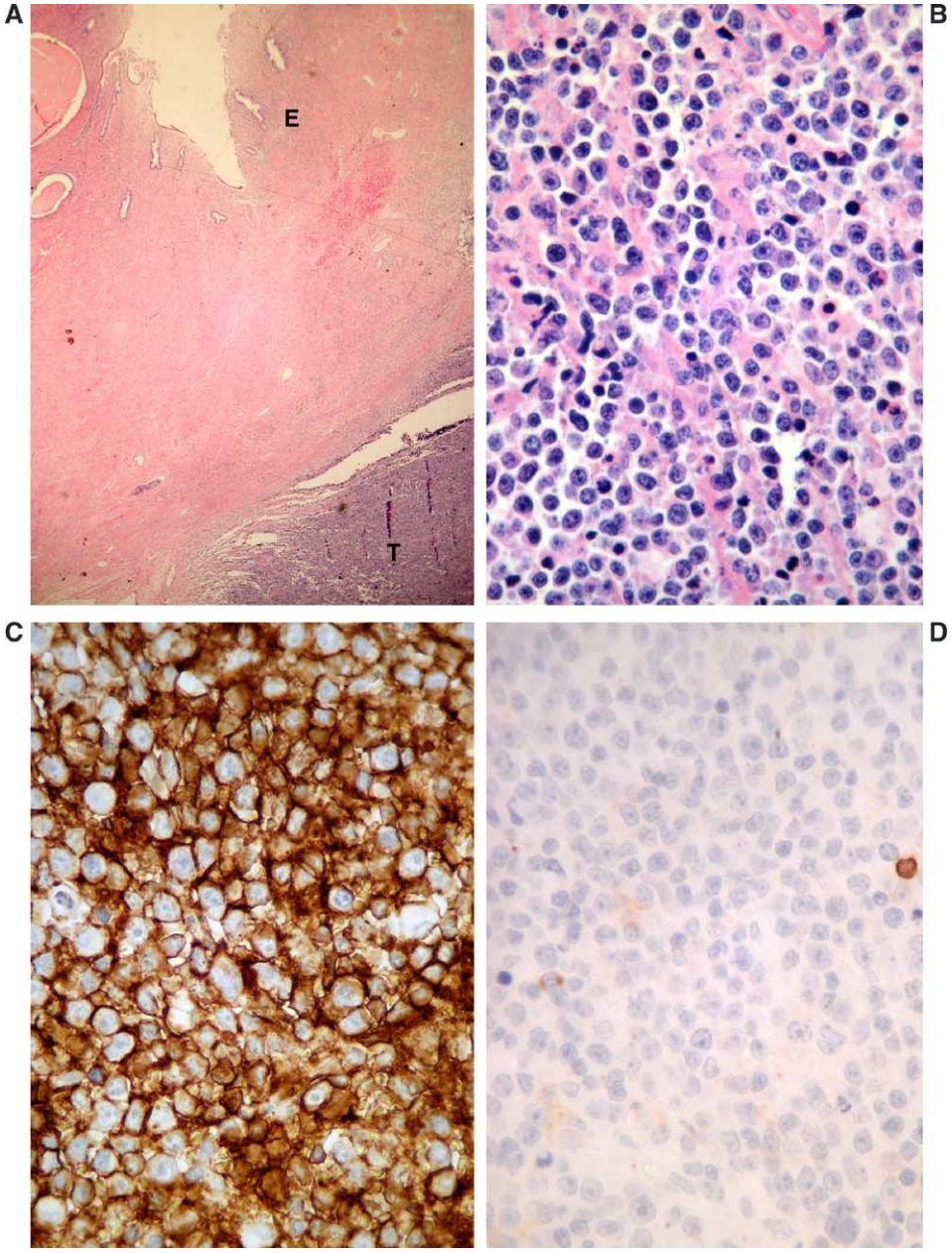

Fig. 1. (A) Upper left corner. Low-power view (20×) showing tumor (T) deep in the endocervical wall (E = endocervical mucosa). (B) Upper right corner. High-power view (400×) of the tumor, showing a fairly monomorphic population of malignant lymphocytes, with large vesicular nuclei and prominent nucleoli. (C and D) Lower left and right corners. High-power (400×) immunohistochemical view of tumor cells showing positive staining for pan B cell marker L26 (left), and negative staining for pan T cell marker CD43 (right).