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Case Report

Co-existent extrapulmonary, extragenital tuberculosis and gynaecological tumours: a reminder to pathologists

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ABSTRACT

Extrapulmonary and extragenital tuberculosis is rarely encountered along with gynaecological tumours or malignancy. This report presents a case series of gynaecological malignancies/tumors co-existing with extrapulmonary, extragenital tuberculosis. Pathologists should always stay open to this possibility. A high index of suspicion is needed in view of the HIV pandemic causing resurgence of tuberculosis especially in third world countries.

Keywords: Tuberculosis, Tumors, Urogenital tract

INTRODUCTION

Tuberculosis may coexist with malignancy. However extrapulmonary and extragenital tuberculosis is rarely encountered along with gynaecological tumours or malignancy. We present a case series of gynaecological malignancies/tumors co-existing with extrapulmonary, extragenital tuberculosis.

CASE REPORT

Case I

A 50 year old postmenopausal woman presented with clinical, radiological and biochemical (CA-125) features of malignant ovarian tumor, 25x20x20 cm in size and left renal tumor (Optimal cytoreductive surgery for carcinoma ovary along with left nephrectomy revealed stage Ia serous papillary cyst adenocarcinoma of left ovary (Figure 1), stage I renal cell carcinoma of the upper renal pole (Figure 1) and multiple caseating granulomas suggestive of renal tuberculosis (Figure 1) on histopathology.

Case II

A 60 year old postmenopausal woman presented with carcinoma vulva and clinically palpable groin nodes. The histopathology report of radical vulvectomy with bilateral inguinofemoral lymphadenectomy procedure revealed moderately differentiated squamous cell carcinoma of the vulva (Figure 1) with caseating granulomatous lymphadenitis in inguinal lymph nodes (Figure 1).

Case III

A 30 year old asymptomatic nullipara, previously treated for pulmonary tuberculosis was found to have a solid (possible malignant) adnexal mass 7.3x5.8 cm on ultrasound during investigations for infertility. Serum CA-125, chest X-ray and endometrial biopsy were normal. Laparotomy revealed a solid mass 8x8 cm size replacing the right ovary. Uterus and other adnexa were normal. Right adnexectomy was carried. On sampling of enlarged right external iliac lymph nodes whilst awaiting frozen section, cheesy material got extruded.

Histopathology revealed ovarian leiomyoma and tubercular granuloma of right iliac lymph node.

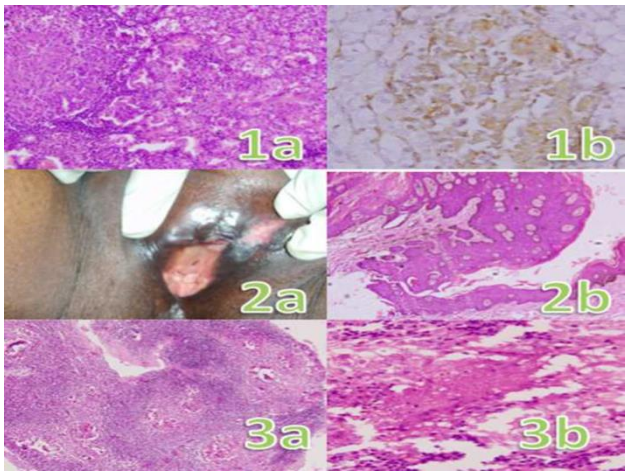

Figure 1: Tuberculosis with urogenital malignancy. Panel 1a: Clear cell carcinoma of kidney with caseating granulomas (pathological photomicrograph). Panel 1b: Clear cell carcinoma showing positive vimentin staining (pathological photomicrograph). Panel 2a: Squamous cell carcinoma vulva (clinical picture). Panel 2b: Squamous cell carcinoma vulva with invasion of basement membrane (pathological photomicrograph). Panels 3 a,b: Epitheloid granulomas in inguinal lymph nodes.

All three patients reported healthy at 12 months follow up post ATT and incidentally none needed adjuvant therapy for primary tumor.

DISCUSSION

Pulmonary tuberculosis with malignancy has been reported in literature.[1] An oncology center in India has reported the highest incidence of pulmonary tuberculosis with head and neck cancer (42%) followed by gastrointestinal cancer (14.1%), lung cancer (13.8%), hematological cancer (10.7%), reproductive cancer (10.3%) and miscellaneous group (9%). In addition, tubercles can be seen within the neoplasm, its regional lymph nodes, in distant metastases or even in uninvolved organs.[1] Genital malignancy coexisting with genital tuberculosis has also been reported.[2] Case reports of adenocarcinoma endometrium and squamous cell carcinoma of the cervix coexisting with endometrial and cervical tuberculosis have been reported.[2] However extrapulmonary extragenital tuberculosis in malignancy is not as common.[3] Co-existence of tuberculosis and carcinoma could be a co-incidence or could be a reactivation of latent tuberculosis or fresh infection due to immunosuppression and tumor.[3] In case II, it could be argued that fine needle aspiration cytology could have avoided a lymphadenectomy but sentinel lymph node biopsy in vulvar cancer is controversial.[4] Special care is required during histopathological evaluation as this entity independently and significantly adds to the post operative morbidity and mortality, more so after adjuvant chemotherapy or radiotherapy.[5] Sometimes preoperative imaging including 18 F-FDG PET mistakenly reports pelvic tubercular lymphadenitis as possible tumor metastasis. Hence pathologists should always stay open to this possibility.[5] A high index of suspicion is needed in view of the HIV pandemic causing resurgence of tuberculosis especially in third world countries.

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