PRIMARY MALIGNANT LYMPHOMA OF THE CERVIX UTERI: A CASE REPORT

C C Khong, K L Yam, B H Ong

ABSTRACT

Primary reticuloendothelial disease of the genital tract is an extremely rare condition. We encountered one such patient with diffuse large cell malignant lymphoma of the cervix uteri who presented with irregular vaginal bleeding. After complete haematological and radiological investigations, satisfactory treatment of the Stage I disease was achieved with total hysterectomy, bilateral salpingo-oophorectomy and post-operative pelvic irradiation.

Key words: Lymphoma, Cervix.

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INTRODUCTION

Involvement of the female genital reproductive tract by lymphoma or leukemia as a part of a generalized process is well recognized. Rosenberg et al, in reviewing necropsies, found histologic involvement of the genital tract in about 40% of patients with lymphoma (1). Initial presentation of clinically recognized lymphoma or leukemia in the cervix or corpus uteri, or vagina, is very unusual (2). Isolated cases of reticuloendothelial disease of the cervix uteri have been reported by various authors (3, 4, 5, 6, 7, 8). We encountered a patient who presented with primary diffuse large cell malignant lymphoma of the cervix uteri at Alexandra Hospital in 1986.

CASE REPORT

The patient was a 54 year old Chinese who had been married for 37 years. She had six uncomplicated vaginal deliveries. She presented with irregular and heavy bleeding per vagina on four occasions over a period of two months. Her menstrual flow was described as heavy, associated with clots. She did not have symptoms of dysmenorrhoea, intermenstrual or postcoital bleeding. She did not have any constitutional symptoms.

Physical examination revealed a rather healthy patient in good general condition. She was not pale and vital signs were stable. She did not exhibit any signs of endocrine diseases. Peripheral lymph nodes were not enlarged. Her cardio-respiratory systems were normal. Abdominal examination was unremarkable. Pelvic examination, however, revealed a bulky and barrel-shaped cervix with contact bleeding at the anterior lip. The cervix was firm and nodular in consistency. The uterine corpus was enlarged to 12 weeks size. There were no enlarged adnexal masses.

Haematological investigations and urinanalysis including a urine pregnancy test were all normal. Papanicolaou smear of the external cervical os revealed the presence of a few scattered mononuclear cells. Chest Xray was normal and ultrasound scan of the pelvis revealed an enlarged cervix measuring 4.3 centimetres in length and 5.5 centimetres in diameter.

Based on her symptoms and physical findings, a provisional diagnosis of endocervical carcinoma was made. She was then listed for examination under anaesthesia, punch biopsy of the cervix and dilatation and curettage of the uterus. The histology of the punch biopsy was one of diffuse large cell malignant lymphoma. The uterine curettings showed the presence of a few malignant cells but could not be conclusive of definite uterine involvement. Subsequent tissue typing of the cells revealed that the malignant cells were of a follicular cell origin. Bone marrow biopsy was negative. A CT scan of the abdomen and pelvis did not reveal any enlarged nodes.

The patient had a staging laparotomy during which a splenectomy, liver biopsy, para-aortic and pelvic lymph nodes sampling was performed followed by a total hysterectomy and bilateral salpingo-oophorectomy. Normal liver and spleen were found during laparotomy. A slightly enlarged uterus was found to be located above a bulky cervix. There were no unusual technical difficulties encountered during surgery. The patient recovered uneventfully from her operation. The patient received post-operative adjuvant radiotherapy with 5000 rads to the pelvis. She is presently well.

HISTOPATHOLOGY

Gross examination of the uterus, fallopian tubes and ovaries showed a moderately enlarged uterus and a bulky cervix with both appendages attached.

On sectioning the cervix white solid oval areas were seen on the anterior lip measuring 1.5 centimetres in greatest dimension. These were situated just above the external os (Figure 1).

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The endometrium was atrophic and myometrium was thickened. Both ovaries had a follicular cyst each and the fallopian tubes were unremarkable.

On microscopy the white areas in the cervix consisted of circumscribed nodules of large lymphoid cells with hyperchromatic round to oval nuclei (Figure 2). Some of the nuclei had prominent nucleoli. Few mitoses were present (Figure 3). At the periphery were collections of small to medium sized lymphocytes (Figure 4). There was also chronic cervicitis and squamous metaplasia of the endocervical mucosa.

The endometrium showed cystic adenomatous hyperplasia and haemorrhage in the stroma. The myometrium showed hypertrophy of the smooth muscles. Both the ovaries had follicular cysts and fallopian tubes were unremarkable.

Microscopy of the common iliac, inguinal and nodes at the level of L3, L4 showed no evidence of malignancy.

Histology of the spleen and wedge biopsies of the liver showed normal parenchyma.

A diagnosis of non-Hodgkin's lymphoma of the cervix was made.

DISCUSSION

Primary reticuloendothelial disease of the genital tract is an extremely rare occurrence. Finding the disease in the genital tract as part of a general lymphomatous condition is much more common. Chorlton et al (2) found 13 cases of malignant lymphoma of the genital tract, other than the ovary among 9500 lymphomas in women, a prevalence of 0.14%. Freeman et al (9) reported 14 cases of extranodal lymphoma of the female genital tract, excluding the ovary, among 1,463 lymphomas in women, a prevalence of 0.95%. Whether lymphomas are truly primary in the

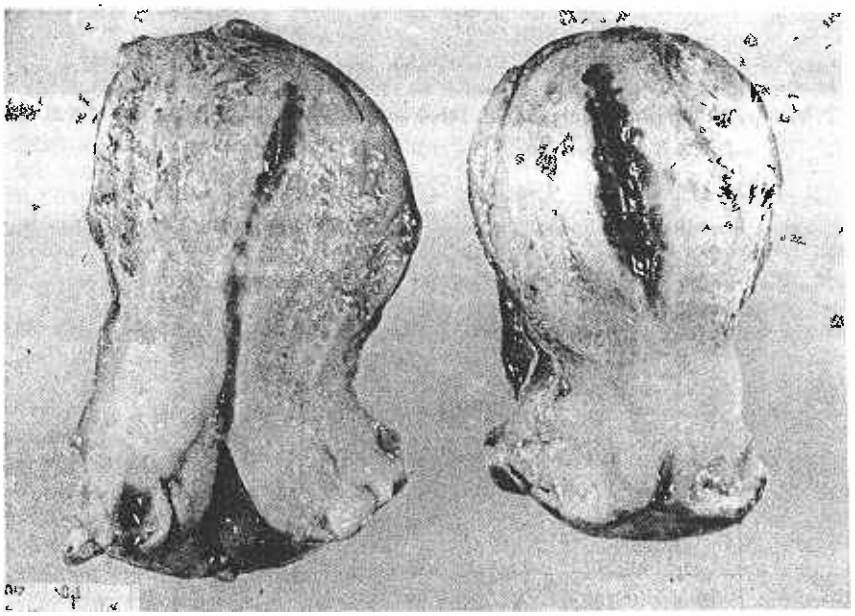

Figure 1: Gross specimen of the uterus and cervix. The cervix is enlarged by the tumour.

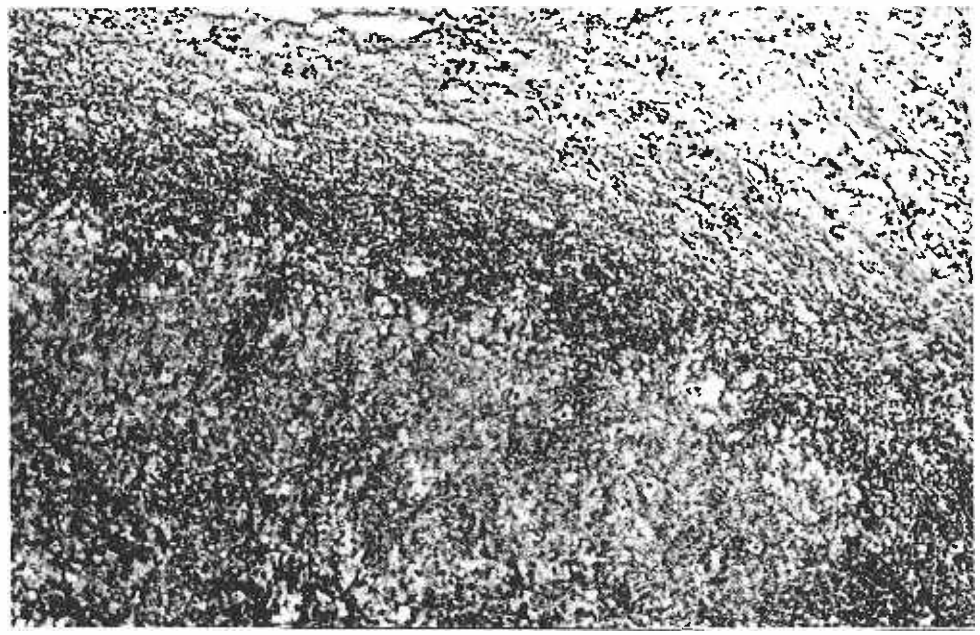

Figure 2: Non-Hodgkins lymphoma at lower half of picture surrounded by small lymphocytes. Cervical stroma at upper right. H & E stain. x 250.

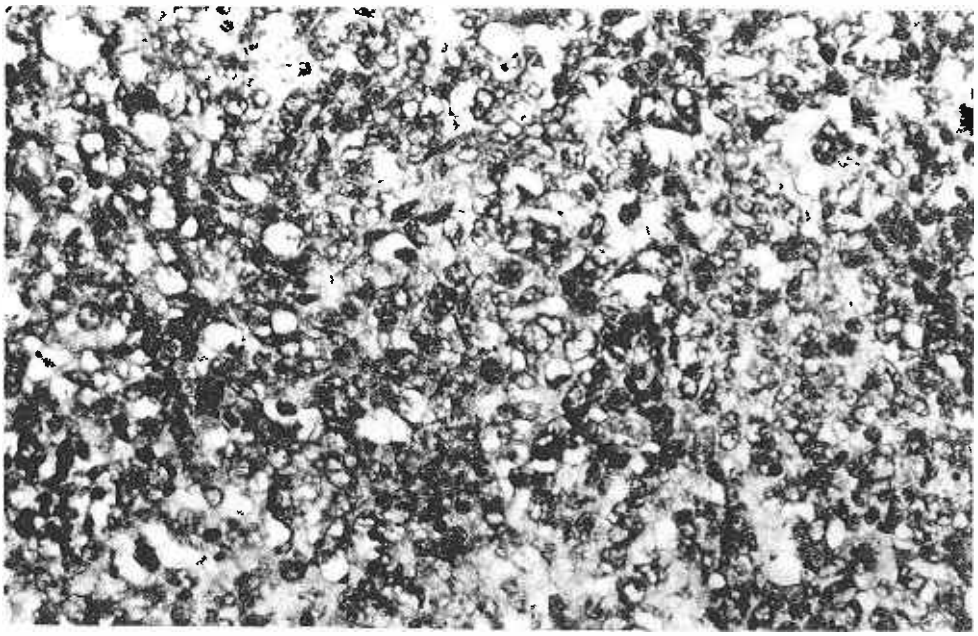

Figure 3: Malignant lymphoid cells which have rounded to irregular nuclei. H & E stain. x 1000.

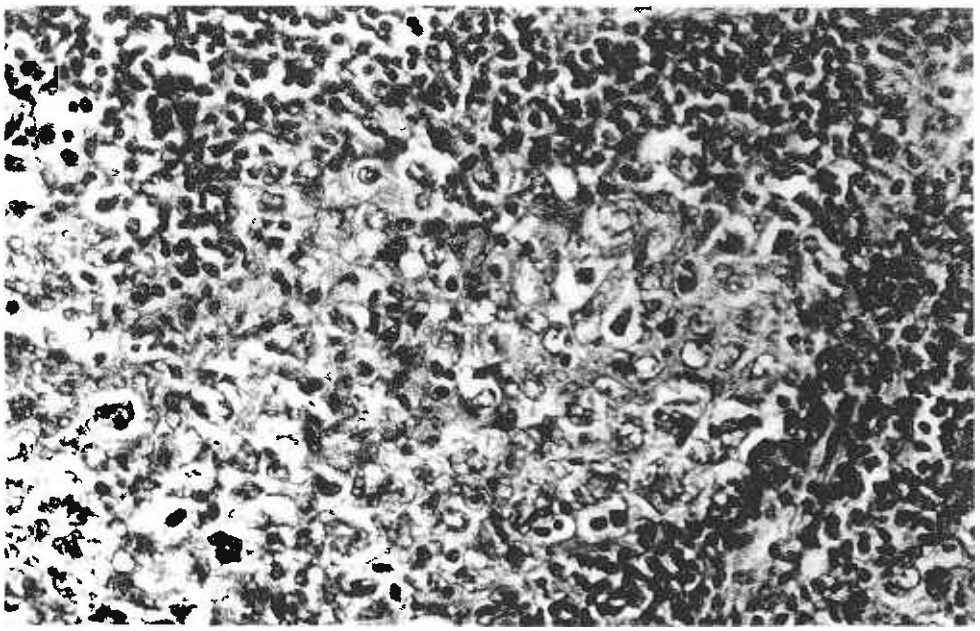

Figure 4: Large malignant lymphoid cells and rim of small lymphocytes are seen at the periphery of the tumour. H & E stain. x 1000.

cervix or vagina or are merely a localized initial manifestation of a generalized process cannot be answered at the present moment. The important point is that lymphoma can present as an initial manifestation in the female genital tract and have no extracervical involvement detected visibly by current investigative techniques. The diagnosis is almost never achieved clinically. When patients present with barrel-shaped bulky cervices, the initial clinical impression is usually one of an endophytic carcinomatous lesion. Due to the rarity of this disease, cytologic evaluation of these patients have not been widely documented. Taki et al (10) reported a case in which examination of the cervical smear first indicated the malignant lymphomatous nature of the case. The Papanicolaou smear of this patient did show the presence of a few scattered mononuclear cells which, in retrospect, could be reflective of lymphoma of the cervix.

Although the punch biopsies taken from this patient confirmed the diagnosis of diffuse large cell malignant lymphoma, the presence of a few malignant cells in the uterine curettings is perhaps of doubtful significance. It would not be unreasonable to expect some malignant cells from the cervix to be picked up together with the uterine curettings at the time of dilatation and curettage.

In the authors' opinion, a multidisciplinary team approach to the management of these patients is most ideal. After this patient was fully investigated haematologically and radiologically, she was operated jointly with the general surgeon who performed the staging laparotomy, splenectomy, liver biopsies and para-aortic nodes dissection. The ideal mode of treatment for primary lymphoma of the cervix is open to dispute. There are those who advocate treatment with irradiation alone. Others like Chorlton et al (2) reported that patients with early stage

disease confined to the cervix have good prognosis when treated by primary surgery with or without adjuvant radiotherapy. It was therefore decided that this patient be treated by surgery followed by pelvic irradiation. The added advantage of surgery would be the opportunity to do a staging laparotomy concurrently.

Lymphomas involving extranodal sites are staged by a lymphoma staging classification in order to make comparisons from one study to another and to assess therapy and prognosis. Since staging of lymphomas differs from staging of gynaecologic cancers, the patient in this study was designated by the Ann Arbor lymphoma-staging classification (11). This patient fulfilled the criteria for Stage 1 disease.

Localized or Stage 1 extranodal lymphomas generally have better prognosis compared to nodal lymphomas (10). The relatively good 5-year survival for patients with lymphoma of the cervix and vagina has been attributed to more prominent and specific gynaecologic symptoms encountered in these patients. Chorlton et al reported that 60% of such patients presented with abnormal vaginal bleeding and perineal discomfort or pain in 40% (2). These symptoms presumably occur at an earlier stage in the disease process, thus allowing for better survival. In contrast, patients who have lymphoma of the ovary often have vague symptoms and are usually discovered late.

It has been estimated that approximately 20% of patients with lymphoma will have a leukemic phase, or abnormal circulating cells in the peripheral blood, in the terminal phase of the disease (12). This means close and diligent follow-up is mandatory in spite of the good prognosis associated with extranodal lymphomas. It may well be necessary to order a full blood profile including peripheral blood film routinely at every subsequent visit from these patients.

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