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PRIMARY NON-HODGKIN'S LYMPHOMA OF UTERINE CERVIX

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ABSTRACT

Primary non-Hodgkin's lymphoma of the uterine cervix is rare. We report a 56-year-old woman who presented with post-coital bleeding. Pelvic examination revealed a uterine cervical mass, which confirmed to be large B cell lymphoma on histopathological examination. Computed tomography and surgery showed a primary lesion in the uterine cervix with no lymph node or other extranodal involvement. Primary B cell non-Hodgkin's malignant lymphoma of the cervix stage 1E was diagnosed. The patient was treated with surgery and 6 courses of combined chemotherapy (cyclophosphamide, doxorubicin, vincristine, and prednisone). In some cases of patients with big uterine mass that caused mechanical problems, we must think about primary non-Hodgkin's lymphoma of uterine cervix which requires combination treatment regimens such as surgery with chemotherapy.

KEYWORDS: Non-Hodgkin's lymphoma, primary, uterine cervix, surgery, chemotherapy.

INTRODUCTION

Lymphoma is the commonest hematological cancer and is divided into Hodgkin (20-30%) and non-Hodgkin (70-80%).[2] Primary non-Hodgkin's lymphoma of uterine cervix is a rare diagnosis. Non-Hodgkin's lymphomas (NHL), especially extra-nodal NHL, are increasing in incidence, but the etiology of much of this increase is still unclear.[4] The age at diagnosis in the known cases has ranged from 20 to 80 years, with the median age in the studies varying from 40 to 52 years.[4] Isolated genital tract extra-nodal disease accounts for less than 1% of NHL.[2] The diagnosis of a primary lymphoma implies the existence of some criteria: at the time of diagnosis, the disease has to be confined to a solitary extra-nodal site, an adjacent lymph node group, or other contiguous structures; no abnormal cells should be found in the

peripheral blood and bone morrow; other lymphomatous lesions should not appear at distant locations several months after the initial diagnosis.[3,4] In fact, if these stringent criteria are used, primary malignant lymphomas of the female genital tract will be very rare.[3] The most frequent presenting symptom is abnormal vaginal bleeding, with pelvic examination then revealing a cervical mass.[3] A diagnosis of primary cervical non-Hodgkin lymphoma is frequently delayed, since its presentation often mimics other more common conditions, such as cervical carcinoma or a cervical fibroid.[3] This diagnostic uncertainty can result in delayed treatment.[3] Gynecologists should be familiar with the features of isolated genital tract NHL, as patients can experience delay in diagnosis and misdiagnosis.[3] Accurate histopathological typing of this heterogeneous disease is necessary to guide management.[2]

CASE REPORT

A 56-year-old, married, menopausal woman, presented to Gynaecology Out-patient Department with a 3-month history of postmenopausal bleeding. She was menopausal since the age of 49 and had no previously gynecology operations. She had her menarche aged 12 and used to have menorrhagia with irregular periods in the latter part of her reproductive period. She gave birth to two childs. The review of systems was negative for history of prolonged fever, weight loss or night sweats. There was no peripheral lymphadenopathy and examination of the upper abdomen was unremarkable. The remaining results of the physical examination were within normal limits. On review by the hematologists, her blood investigations including a full blood count, erythrocyte sedimentation rate and electrolytes, liver function tests and enzymes, serum calcium and phosphate, C-reactive protein, LDH, and uric acid and serum protein electrophoresis were found to be within normal limits. Laboratory tests showed increased levels of urea and creatinine.

At admission, ultrasonography showed marked left and right bi-sided pyelocalyceal and ureteral dilatation caused by voluminous pelvic expansile mass, without cleavage plane with the uterus. Abdominal and pelvic computed tomography (CT) showed diffuse enlargement of the uterine cervix from pelvic mass nearly 14 cm, causing left and right bi-sided pyelocalyceal system and ureteral dilatation with no lymph nodes enlargement in the perivascular pelvic retro peritoneum, mesenteric root and external and internal iliac chains. All the lymph node groups seen were normal by radiological criteria. The liver, spleen and kidneys were normal.

Her current postmenopausal bleeding was managed by examination under anaesthesia and biopsy of uterine cervix and dilatation and separate curettage's. Vulva and vagina were noted as normal. On pelvic examination, cervix was found to be enlarged, forming firm and hyper vascular mass that fills the entire women pelvis. The uterus was anteverted and not mobile as usual. Adnexae were no palpable. A biopsy from the cervical lesion was taken. No samples were obtained on exploration of the uterine cavity with polyp forceps; however, scanty curettings were obtained on curettage from uterine cervix and cavity. Histopathological examination confirmed a non-Hodgkin's lymphoma of the uterine cervix. Histologically, there was diffuse infiltration of the stroma of the ectocervical and endocervical tissues by monomorphic population of malignant lymphoid cells. The cells had intermediate to large, round to ovoid, irregular nuclei surrounded by scanty neoplasm. Neutrophilic infiltration was also noted. Immunohistochemical study showed that the neoplastic cells were positive for B cell markers. A diagnosis of diffuse large B cell non-Hodgkin's lymphoma (DLBCL) stage 1E (Ann Arbor classification) was made.

Treatment of primary pelvic non-Hodgkin lymphoma is different from treatment of other cervical malignancies or fibroids. Surgery is not obligatory, since the diagnosis of non-Hodgkin lymphoma is correctly made. According to our Department of Hematology, six courses of cytotoxic chemotherapy must be done. This is CHOP chemotherapy protocol, which consisted of cyclophosphamide (Cytoxan, Bristol Meyer Squib, NJ, USA), adriamycin (Doxorubicin, Pharmacia and Upjohn, MI, USA), vincristine (Oncovin, Eli Lilly, Indianapolis, IN, USA) and prednisone (Roxane, Columbus, OH, USA).

In our case we start with surgery. The patient was planned, prepared and taken for surgery because of mechanical cervix mass pin cement of surrounding tissues and organ systems due to pyelocalyceal and ureteral dilatation and bilateral hydronephrosis. At laparotomy we find out, a tumor mass around 14-15 cm in the pelvis, arising from the uterine cervix and normal uterine body. An abdominal total hysterectomy with bilateral adnexectomy, external and internal, selective pelvic lymph node biopsy was done. The specimens were photographed and sent to Department of Pathology. The gross examination showed a predominantly solid grey-white, uterine cervix tumor measuring 14 x 15 cm. From surgical and pathologic findings, the diagnosis of B cell non-Hodgkin's lymphoma was made, no pelvic lymph nodes disease.

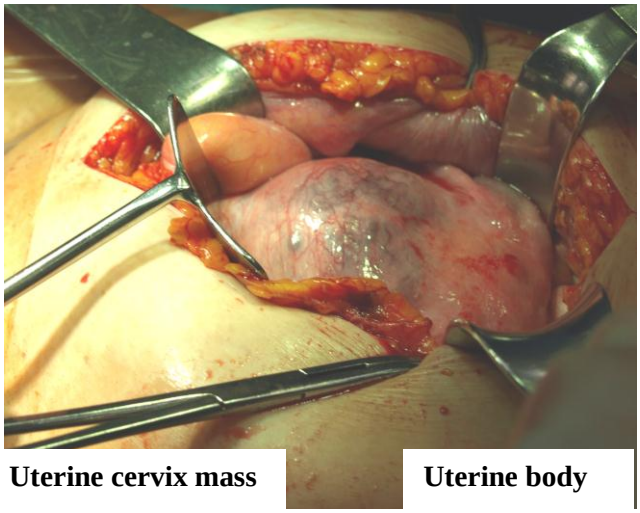

Figure 1: First intraoperative findings of uterus and uterine cervical mass.

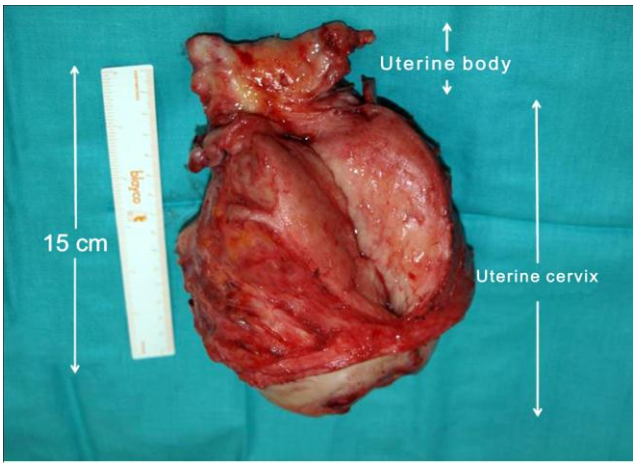

Figure 2: Cut section of uterus cervix with non-Hodgkin's diffuse large B-cell lymphoma.

The postoperateive course was uneventful and the patient subsequently underwent combined (CHOP) chemo therapy. At last follow-up (September, 2017), she was alive with no evidence of disease.

DISCUSSION

Isolated genital tract extra–nodal disease accounts for less than 1% of NHL.[2] Kosari et al. find out in a series of 147 isolated genital tracts NHL the percentage breakdown was as follows: 59% ovarian, 15.5% uterine corpus, 11.5% uterine cervix, 7.5% vulvar and 6% vaginal.[5] The rest of the cases involved more than one organ.[5] In up to 80% of cases, uterine and cervical NHL appears to be the primary site of disease.[5] Primary non-Hodgkin's lymphoma of the uterine cervix is extremely uncommon.[1] Studies reported that only 0.12%

of all non-Hodgkin's lymphoma originates from the uterine cervix.[2] The most common subtype is DLBCL.[1] The clinical symptoms are nonspecific and may mimic other entities, such as cervical or endometrial carcinoma, uterine fibroids, adenomyosis and endometriosis.[1] Cervical cytology is typically negative or non-specific.[1] Diagnosis invariably requires a biopsy.[1]

Presenting symptoms mentioned in previous reports are vaginal bleeding, vaginal discharge, and pelvic pain, dyspareunia, and B symptoms.[4] The most common complaint is abnormal vaginal bleeding.[4] Although B symptoms, which include fever, weight loss, night sweats, and fatigue, are often associated with systemic lymphoma, they are uncommon in cervical lymphoma.[2] Our case presented with abnormal vaginal bleeding and vaginal discharge without B symptoms.

A standard treatment for primary uterine cervical non-Hodgkin's lymphoma has not been clearly defined, as a consequence of its low incidence.[1] According to some case reports and short series, the cornerstone of therapy is radiation alone or irradiation combined with either chemotherapy or surgery.[1] Others used only combination chemotherapy.[1] Studies emphasized that using chemotherapy instead of irradiation can preserve ovarian function, as well as prevent and control the micro metastases.[1] Current guidelines for management of symptomatic patients with NHL suggest using different regimes chemotherapy.[2] Conventional chemotherapy regimes are cyclophosphamide, vincristine and prednisolone (CVP), cyclophosphamide, doxorubicin, vincristine and prednisolone (CHOP), mitoxantrone, chlorambucil and prednisolone (MCP), cyclophosphamide, doxorubicin, etoposide, prednisolone and interferon-α (CHVPi), chlorambucil, and recently bendamustine.[2] The addition of rituximab to the CHOP and other regimes chemotherapy, for initial and recurrence treatment of aggressive NHL has improved overall survival for DCBL.[2] Rituximab is recommended as a maintenance therapy for patients with follicular NHL which have responded to first-line induction therapy with rituximab in along with chemotherapy.[2] Rituximab alone or in combination with chemotherapy is recommended for patients with relapsed stage III or IV follicular NHL whose previous remission was induced with chemotherapy with or without rituximab.[2]

In our case we started treatment with surgery because of mechanical reasons. Uterine cervix mass pushed the surrounding tissues and organ systems and due to pyelocalyceal and ureteral dilatation and bilateral hydronephrosis. The mechanical causes, are may be the only reasons

to start the treatment of primary non-Hodgkin's lymphoma of the uterine cervix with surgery. In at least one study, surgery alone was reported to be useful in curing localized lymphoma of cervix, although other studies have found surgery less useful.[4] Studies reported that one of 6 cases of cervical lymphomas who had a previous subtotal hysterectomy for leiomyoma subsequently underwent trachelectomy with pelvic node dissection, and three months after primary surgery for her lymphoma, she experienced an intra-abdominal recurrence.[4] Authors also suggested that radical surgery offered no advantage in such cases on the basis of reviewed literature.[4] One notable disadvantage of radiation treatment alone or surgical treatment alone are their inability to treat occult disseminated disease.[4] For young patients with cervical lymphoma who desire fertility preservation, these treatments can compromise fertility and/or ovarian function.[4]

In conclusion, our case presents not a regular medical decision. In selected patients with primary NHL of the cervix with big pelvic mass that caused mechanical problems, combination regime: surgery with chemotherapy (CHOP or CHOP- Rituximab) is the right treatment's option instead the sole chemotherapy which is the standard therapy for the NHL.

REFERENCES

1. Ab Hamid S, Wastie ML. Primary non-Hodgkin's lymphoma presenting as a uterine cervical mass. Singapore Med J., 2008; 49(3): 73-5.
2. Anagnostopoulos A, Mouzakiti N, Ruthven S, Herod J, Kotsyfakis M. Primary cervical and uterine corpus lymphoma; a case report and literature review. Int J Clin Exp Med., 2013; 6(4): 298-306.
3. Groszmann Y, Benacerraf BR. Sonographic features of primary lymphoma of the uterine cervix. J Ultrasound Med., 2013; 32(4): 717-8.
4. Hanprasertpong J, Hanprasertpong T, Thammavichit T, Kongkabpan D, Tungsinmunkong K, Chandeying N. Primary non-Hodgkin,s lymphoma of the uterine cervix. Asian Pac J Cancer Prev., 2008; 9(2): 363-6.
5. Kosari F, Daneshbod Y, Parwaresch R, KramsM, Wacker HH. Lymphomas of the Female Genital Tract. A Study of 186 Cases and Review of the Literature. Am J Surg Pathol., 2005; 29: 1512-1520.