Primary Non-Hodgkin Lymphoma of The Cervix

Nasim Valizadeh,[1] Haleh Ayatollahi,[2] Siamak Naji[3]

[1]Hematology- Medical Oncology Department, Emam Khomeini Hospital, Urmia University of Medical Sciences,Urmia, Iran
[2]Gynecology & Obstetric Department, Motahari Hospital, Urmia University of Medical Sciences, Urmia, Iran
[3]Pathology Department, Motahari Hospital, Urmia University of Medical Sciences, Urmia, Iran

Corresponding Author: Dr. Haleh yatollahi, Assistant professor of Gynecology & Obstetric
Motahari Hospital, Urmia University of Medical Sciences,
Urmia, Iran
Phone: 00984412220952
Mobile:00989141611031
Email: hayatollahi@yahoo.com

Abstract:
Background: There are only a few reports that exist regarding primary non-Hodgkin lymphoma of the genital tract. In this article, one case of primary B-cell type non-Hodgkin lymphoma (NHL) of the cervix is presented.
Case history: A 45 year-old woman presented bloody vaginal discharge. Upon vaginal examination, the cervix was found to be enlarged. Cervical biopsy revealed B-cell type non-Hodgkin lymphoma. The patient was treated with CHOP chemotherapy.
Conclusion: Systemic chemotherapy and radiation are recommended and effective treatments for genital tract B-cell type non-Hodgkin lymphoma.

Key Words: Cervix, Non-Hodgkin lymphoma, Primary

Introduction

Primary Non-Hodgkin lymphoma of the uterine cervix is rarely reported in literature.(1, 2, 3, 4, 5) Abnormal uterine bleeding is the manifestation of primary NHL of the cervix in most cases.(1, 2, 3, 5) Persistent dyskaryosis on cervical cytology,(3) abnormal pap smear,(1) fever, abdominal pain, and bilateral hydronephrosis are other manifestations of the disease.(4) Although hysterectomy and pelvic lymphadenectomy is recommended by some authors,(1) radical surgery is not necessary.(5) One treatment option is systemic chemotherapy.(2, 5) Post chemotherapy irradiation to improve local control is also considered by some authors to be effective.(1, 2) We would like to present a case study of primary B-cell type NHL of the uterine cervix.

Case Report

A 45 y/o female occasionally presented vaginal discharge for 12 months and bloody vaginal discharge during the last 3 months prior to examination. She had no history of weight loss, fever or night sweats. Her medical history was positive for hypertension. She had previously taken lozartan and atenolol for hypertension. Physical examination revealed pallor without lymphadenopathy or organomegaly. During the vaginal exam, the cervix was enlarged to 8×8 cm in dimension. The parametrium was not indurated. Laboratory findings are included below:
WBC count = 6000/µL (Neutrophil= 86%, lymphocyte= 24%), Hb= 10.8 g/dl, MCV= 90 fl, Platelet counts= 309,000/µl, AST= 43U/L, ALT= 23U/L, Albumin= 3.7g/L, ESR=10 mm/hour, LDH= 818U/L, FBS=86 mg/dl, Calcium=7.7 mg/dl, Cr=0.85 mg/dl, Alkhaline phosphatase, total and direct billirubin were in normal ranges. Serologic tests were negative for HBS Ag, HCV Ab, HIV Ab. CRP was positive (3 plus) and thyroid function tests were normal.
Chest X ray, ECG and echocardiography were all normal.
Abdominal sonography revealed a large (5×6×7 cm) complex mass with a focus of cystic degeneration inside it. Abdominal CT scan revealed a large mass in the cervix and right parailiaclymphadenopathies (Figure- 1).

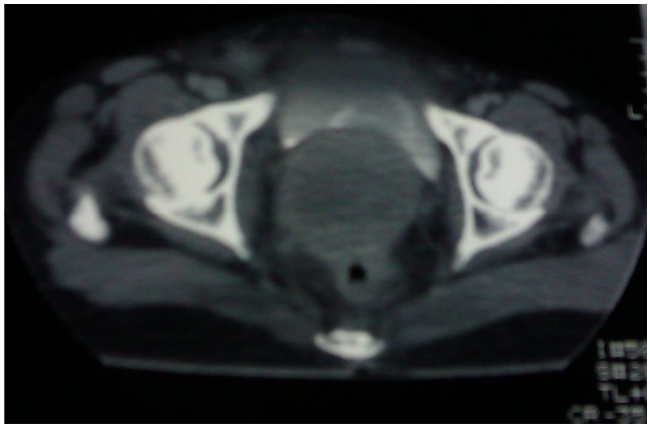

Figure 1: Abdominal CT scan showing large mass in cervix.

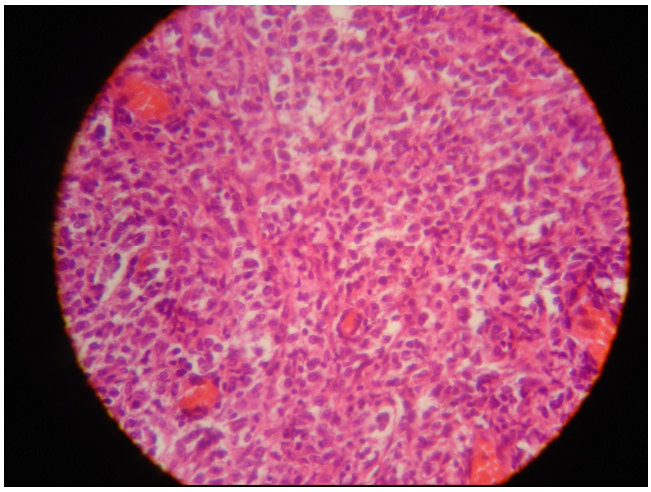

Figure 2: Microscopic view of the cervical biopsy

Chest CT scan was reported as normal. Biopsy of the cervical mass revealed cells with large round nuclei, scant cytoplasm and some nucleoli within them. Immunohistochemistry studies were positive for LCA and CD 20 and negative for bcl-2, bcl-6, EMA, S100, desmin, and keratin. Ki-67 tests were positive in more than 50% of the cells (Figure- 2). The diagnosis of B-cell lymphoproliferative disorder of the cervix was made and chemotherapy with R-CHOP regimen and radiation therapy after the 8th cycle of chemotherapy was considered for the patient (since her family did not accept the cost and toxicity of rituximab, she only received the CHOP regimen). After biopsy of the cervix, the patient developed deep vein thrombosis of the right lower extremity and therefore enoxparin and warfarin therapy was started. After one week: PT was 19 sec with INR= 2 and PTT= 37 sec. After one year of being diagnosed, the patient is found to be in good health with normal test results.

Discussion

Primary Non-Hodgkin lymphoma of the uterine cervix is rare.(1, 2, 3, 4, 5) It accounts for nearly 1 in 730 cases of Non-Hodgkin lymphomas.(6) Although abnormal uterine bleeding was the most common manifestation of primary NHL of the uterine cervix,(1, 2, 3, 5) persistent dyskaryosis on cervical cytology,(3) fever, abdominal pain, and hydronephrosis were other manifestations.(4) Some Chinese authors have recommended a combination of surgery and chemotherapy as the therapy for primary NHL.(7) The most effective treatment that has previously been recommended by authors is a combination of systemic chemotherapy and irradiation.(2, 8, 9) We should consider these treatments for primary non-Hodgkin lymphoma of the cervix in women with abnormal vaginal bleeding and/or pap smears, and mass of the cervix, especially in the presence of fever, weight loss, night sweats, lymphadenopathy or organomegaly. Tissue diagnosis and immunohistochemistry studies are necessary for differentiation between malignant lesions of the cervix due to the different treatments and prognoses between these lesions.

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