

# Primary non-Hodgkin's lymphoma of the uterine cervix: A case report

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## ABSTRACT

*Primary uterine cervical non-Hodgkin's lymphomas (NHL) are rare. Limited experience dictates careful pretherapy evaluation and multidisciplinary approach in treatment planning. A 53-year-old woman presented with postmenopausal bleeding and PAP smear IIIb. Cervical biopsy and endocervical curettage biopsy revealed NHL of the uterine cervix. Abdominal hysterectomy with bilateral adnexectomy was followed by pelvic lymphadenectomy due to lymph node metastasis, 21 months after the primary operation. Subsequently, the patient received postoperative chemotherapy. Seven years after the onset of NHL she is alive with no evidence of disease recurrence.*

**KEY WORDS:** Cervix Neoplasms; Lymphoma, Non-Hodgkin

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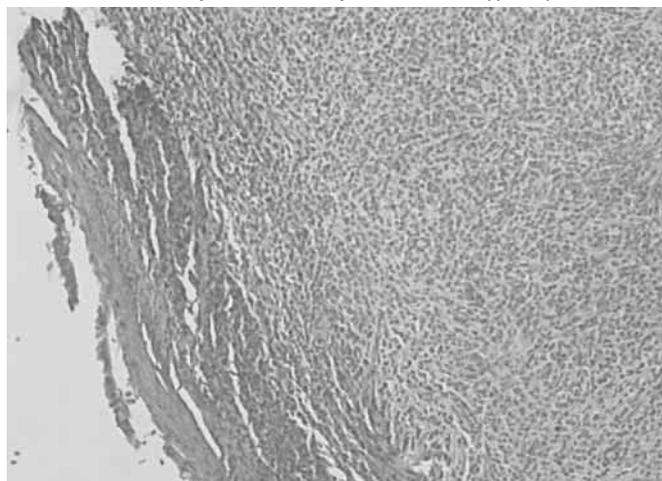
## INTRODUCTION

Malignant lymphoma originating in the uterine cervix is a rare entity occurring in approximately one in every 730 cases of non-Hodgkin's lymphoma (NHL) (1). Most of the published reports deal with single or couple of cases. The largest number of cases from English literature was reported in 1991, when 5 cases were described and compared with 38 previously reported cases stage IE (2). NHLs involving the uterus may be either low-stage primary uterine neoplasms, or systemic neoplasms with secondary uterine involvement (3). Symptomatology is not specific: vaginal bleeding, abdominal or pelvic discomfort, back pain, or vaginal discharge (4). On pelvic examination cervical enlargement can be seen, for primary cervical NHLs cause diffuse or multinodular cervical enlargement, with minimal or no changes of the epithelium (5). Cervical biopsy and endocervical curettage give the definite diagnosis. Pretherapy evaluation should include computerized tomography (CT) or magnetic resonance imaging (MRI) of the pelvis and abdomen to determine lymph node status. Primary NHLs of the uterus or cervix are so rare that treatment series of single institutions consist of very small numbers of patients, making standard treatment difficult to define (6). Cervical NHL must be regarded as systemic disease. They should, therefore, be treated by local surgery and subsequent systemic chemotherapy (7). Some authors recommend chemotherapy and irradiation as the most effective therapeutic approach (1,2,6,7).

## CASE PRESENTATION

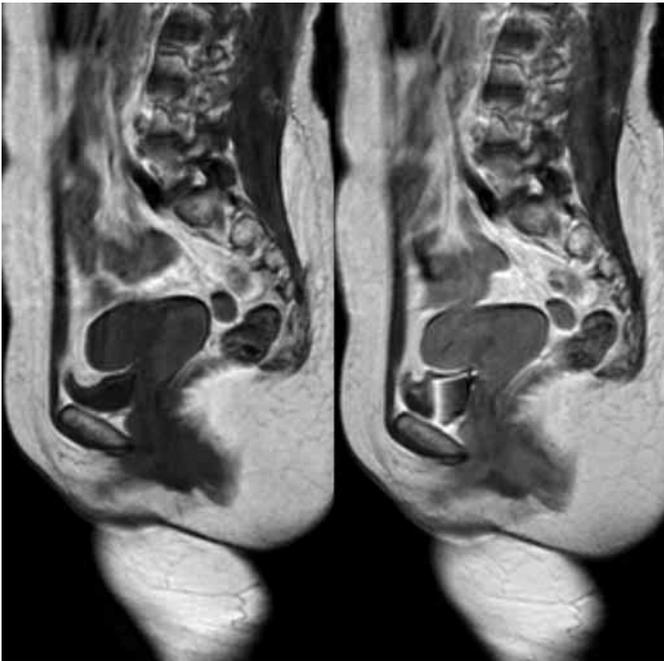
A 53-year-old postmenopausal woman presented with slight vaginal bleeding. On examination, the uterine cervix was livid, unusually enlarged and firm. The rest of the clinical examination was normal. Colposcopy showed normal squamous epithelium, without pathological findings. PAP smear was IIIb. Cervical biopsy and endocervical curettage were performed and showed low grade, B cell NHL (Figure 1). Preoperative laboratory findings, chest radiography, and abdominal MRI were normal. MRI of the pelvis showed an ovoid

tumor formation measuring 3x4 cm limited to cervix, which was "barrel"-shaped. There was no evidence of pelvic or paraaortic lymphadenopathy. Simple hysterectomy with bilateral adnexectomy was performed and the examined material confirmed low grade B cell NHL of the cervix. After consulting a medical oncologist, no further therapy was planned.

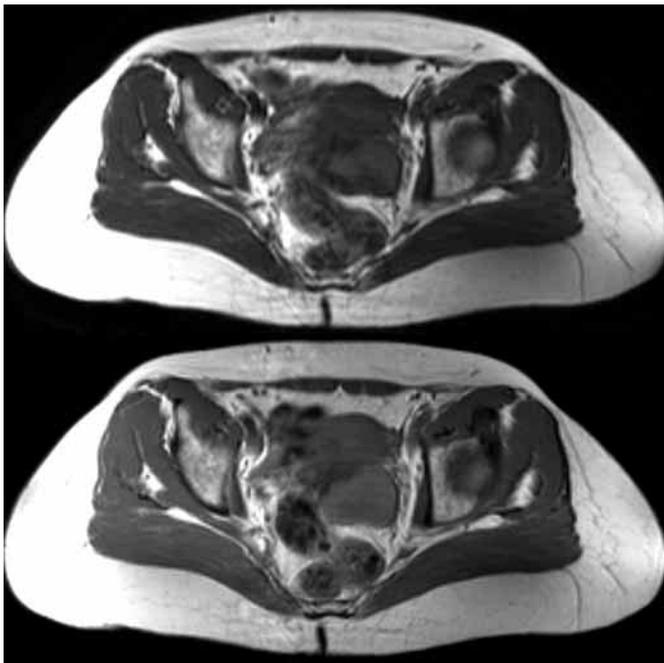


**Figure1.** Low-grade B cell non-Hodgkin's lymphoma, invaded stroma of the uterine cervix under the normal squamocellular epithelium of the exocervix

The patient was put on close follow-up every 3 months. She was doing well for 21 months after the operation, when gynecological examination revealed right iliac node enlargement and abdominal ultrasound showed hydronephrosis of the right kidney. MRI of the pelvis showed significant enlargement of the right iliac lymph nodes. The patient was reoperated and complete pelvic lymphadenectomy was carried out. Histological examination of the resected material showed B cell NHL in the internal, external and interiliac lymph nodes. After the operation she received 6 courses of COPP chemotherapy (cyclophosphamide, vincristine, procarbazine, prednisone).



**Figure 2.** MR tomography of pelvis. Axial section in T1w sequence before and after the application of paramagnetic contrast medium. At the level of cervix and involving fornix and isthmus, paramedianly left, an ovoid formation dia. 2 cm slightly hypertense in T1w sequence (A), moderate post contrast signal intensity (B)



**Figure 3.** Sagittal section in T1w sequence. Tumor formation is relatively homogenous and well defined in relation to postcervical mass. No enlarged lymph nodes are observed

Seven years after the first operation the patient is doing well, without evidence of disease recurrence.

## DISCUSSION

Malignant NHLs of the uterine cervix are so rare, that less than 100 cases are described in the literature, with the largest data coming from 38 cases from English literature (2). Our patient presented with slight postmenopausal bleeding and abnormal PAP smear. According to the majority of authors, abnormal vaginal bleeding (54%), vaginal mass (12%) and dyspareunia (5%) are the most common clinical features (8). Abnormal cervical smear is only rarely found (9). The pathogenesis of cervical NHL is unclear and they are usually

classified in the MALT-oma category (mucosa-associated lymphoid tissue) because of relatively low malignancy, good prognosis and localized growth (2,5). Individual approach should be used in treatment decision. There are no internationally accepted recommendations, due to lack of experience because of the rarity of this condition. Stroh et al., in analyzing 16 cases, recommend combination of chemotherapy and irradiation (6). Chinese authors prefer combination of surgery and chemotherapy (9). Holweg et al. recommend radiation after surgical staging (10). According to our modest experience, hysterectomy with pelvic lymphadenectomy is the first step in therapy. Lymph node status dictates further chemotherapy and/or radiotherapy.

## CONCLUSION

Malignant NHL of the uterine cervix is a rare entity and it should be treated and followed-up by a multidisciplinary team. As a systemic disease, interdisciplinary intervention, including radical surgery, systemic chemotherapy and radiation therapy should be considered.

## REFERENCES

1. Hempling ER in Piver MS: Cervical cancer. Handbook of Gynecologic Oncology, 2nd ed. Boston: Little, Brown and Co.; 1996. p. 103-30.
2. Muntz HG, Ferry JA, Flynn D, Fuller AF, Tarraza HM. Stage IE primary malignant lymphomas of the uterine cervix. *Cancer* 1991;68(9):2023-32.
3. Vang R, Medeiros LJ, Ha CS, Dearers M. Non - Hodgkin lymphomas involving the uterus: a clinicopathologic analysis of 26 cases. *Med Pathol* 2000;13(1):19-28.
4. Agrawal A, Ofili G, Allan TL, Mann BS: Malignant lymphoma of uterus: a case report with a review of the literature. *Aust N Z J Obstet Gynaecol* 2000;40(3):358-60.
5. el Omari-Alaoui H, Kebdani T, Benjaafar N, el Ghazi E, Erriahni H, el Gueddari BK. Non-Hodgkin's lymphoma of the uterus: apropos of 4 cases and review of the literature. *Cancer Radiother* 2002;6(1):39-45.
6. Stroh EL, Besa PC, Cox JD, Fuller LM, Cabanillas FF. Treatment of patients with lymphomas of the uterus or cervix with combination chemotherapy and radiation therapy. *Cancer* 1996;75: 239 -9.
7. Bollermann C, Reuter t, Weber FW, Schwenzler T. Immunoblastic highly malignant lymphoma of the uterine cervix. *Zentralbl Gynakol*,1996;118:673 - 5.
8. DiSaia JPh, Creasman TW. Invasive cervical cancer In: *Clinical Gynecologic Oncology*, 5th ed. St. Louis: Mosby-Year Book, Inc; 1997. p. 51-106.
9. Sun M, Cao J, Zhang G. Ten case report on primary cervical lymphoma. *Abstract. Chung Liu Tsa Chih* 1997;19(3):206-8.
10. Holweg M, Kopp A, Stegner HE, Loning T, Jonat W. Primary lymphoma of the cervix uteri - 2 case reports. *Source Geburtshilfe Frauenheilkd* 1995;55:171-2.