Online Journal of Health and Allied Sciences
Peer Reviewed, Open Access, Free Online Journal
Published Quarterly : Mangalore, South India : ISSN 0972-5997
Volume 11, Issue 1; Jan-Mar 2012

This work is licensed under a
Creative Commons Attribution-
No Derivative Works 2.5 India License

Case Report:

Non-Hodgkin's Lymphoma of the Uterine Cervix

Vasudev DS, Saptahgiri Institute of Medical Sciences and Research Centre,
Amrit Kaur Kaler, MVJ Medical College & Research Hospital.

Address for Correspondence:
Dr. Amrit Kaur Kaler,
MVJ Medical College & Research Hospital,
India.
E-mail: amrit_kaler@yahoo.co.in

Citation: Vasudev DS, Kaler AK. Non-Hodgkin's Lymphoma of the Uterine Cervix. *Online J Health Allied Scs.* 2012;11(1):13
URL: http://www.ojhas.org/issue41/2012-1-13.htm
Open Access Archives: http://cogprints.org/view/subjects/OJHAS.html and http://openmed.nic.in/view/subjects/ojhas.html

Submitted: Feb 22, 2012; Accepted: Mar 20, 2012; Published: Apr 15, 2012

Abstract: Non Hodgkin's Lymphoma (NHL) causes many deaths worldwide and its incidence is increasing. They occur commonly in middle aged and elderly people and are disseminated at diagnosis. We present an interesting case of NHL in a 52 years old female, who presented with past a history of postmenopausal bleeding. A 3 x 5 cms endocervical polyp was noticed in the cervix. Biopsy of the polyp revealed it to be a CD20-positive diffuse large B-cell (DLBCL)-type NHL. She was diagnosed as stage IE after staging work-up. She attained a complete response, and has been in remission for 1 year 8 months.

Key Words: Non-Hodgkin's lymphoma; Vaginal bleeding; Uterine cervix.

Introduction:

Primary Non Hodgkin's lymphoma of the uterine cervix is a rare event that demands particular attention because of the more frequent appearance of an intense inflammatory reaction in this site, such as chronic follicular cervicitis. The genital tract, in fact, is more frequently the site of secondary extranodal lymphomas or leukemic processes in the course of systemic metastasis. Primary NHL of uterine cervix is rare with less than 60 cases reported.[1] It accounts for only 1% of extra abdominal lymphomas. Abnormal vaginal bleeding is the common symptom of many gynecological disorders, but an extremely rare presentation in Non-Hodgkin's Lymphoma. As these tumors arise from the cervical stroma, the epithelium is initially preserved and therefore cytology is often normal.

Case Report:

A 52 years old female presented with post menopausal bleeding of 2 years. There was no history of fever, night sweats, or weight loss. On general physical examination, there was mild pallor. There was no lymphadenopathy or hepatosplenomegaly. Other systemic examination was normal. Colposcopic examination revealed a sessile polypoidal mass involving the posterior lip of cervix. The lesion was soft and bled on contact. Other pelvic visceral structures were normal. Her biochemical investigations and chest X-ray were normal. CT scan of the abdomen and pelvis showed a large enhancing cervical mass, 30x16x38 mm, connecting the endometrial cavity was noted. No gross adenopathy identified. Bone marrow aspiration showed normal histology. Pap smear examination did not reveal any dysplastic or malignant cells. Patient underwent panhysterectomy procedure.

Pathological examination of the specimen showed a pink, soft, sessile polypoid lesion 5 x3 centimeteres involving the posterior lip of cervix (Fig 1). The uterus, ovaries, tubes and the parametrial soft tissue were normal. Histological examination of the cervical polyp showed circumscribed nodules of large lymphoid cells with hyperchromatic oval to round nuclei with prominent nucleoli (Fig 2 & 3). Few mitotic figures were present. Periphery showed small to medium sized lymphocytes. There was also chronic cervicitis with squamous metaplasia of the endocervical mucosa. Depending upon the histopathological findings, a diagnosis of Non-Hodgkin's Lymphoma, diffuse large B cell type was made. It was staged as IA-E by Ann Arbor Staging. Immunostaining revealed majority of the large cells were positive for B cell lineage CD20 and CD45 (LCA) (Fig 4 & 5) for membranous and cytoplasmic positivity and negative for CD3, cytokeratin.

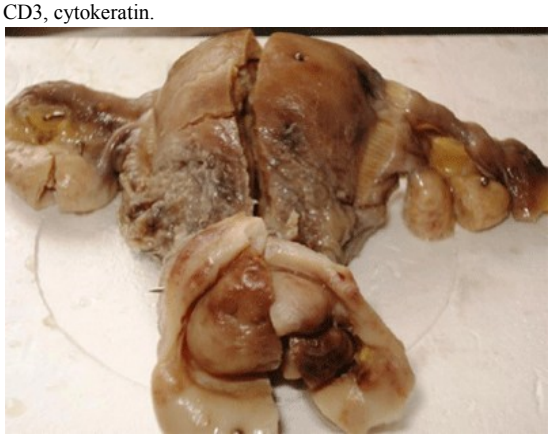

Fig. 1: Gross specimen showing a polypoidal mass protruding from the cervix.

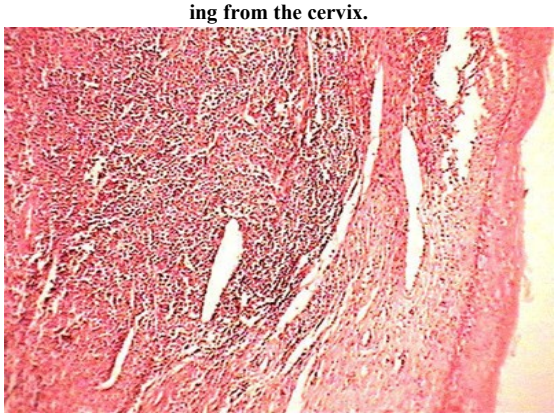

Fig 2: H & E X 25 showing an ectocervical epithelium and subepithelium with circumscribed nodules of sheets of lymphoid cells

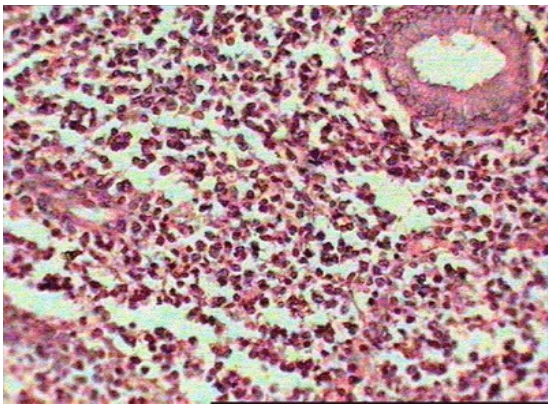

Fig 3: H & E X 40 showing dark hyperchromatic nuclei with scant cytoplasm

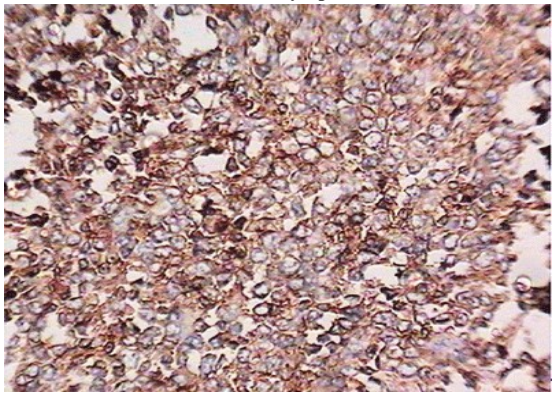

Fig 4: Tumor cells show membranous and cytoplasmic positivity for common leucocyte antigen (LCA)

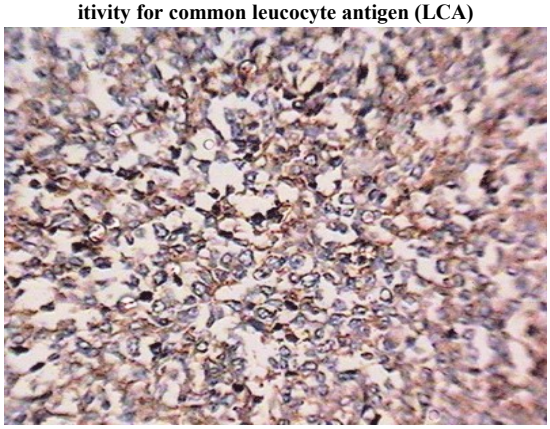

Fig 5: Tumor cells show membranous and cytoplasmic positivity for CD20

Discussion:

Primary malignant lymphoma of the female genital tract is rare. Review of the literature suggests that NHL of cervix affects one in 753 cases of non Hodgkin's lymphoma. One in 175 female extranodal lymphomas is likely to originate in the vagina, uterus, or cervix.[2] Crisp et al reviewed cases from three hospitals for 1969-1979 and identified only six cases of primary pelvic NHL, including one ovarian, one cervical and three retroperitoneal tumors.[3] Charleton et al, found thirteen cases of malignant lymphomas of the female genital tract, other than the ovary among 9500 lymphomas in women, a prevalence of 0.14%.[4] Although all are uncommon, malignant lymphomas is more common in cervix than corpus of the uterus.

A lymphoid proliferation of the cervix is a common finding often associated with chronic cervicitis. However, nodular or diffuse inflammatory reactions containing large lymphoid cells within an indolent clinical setting pose a problem of differential diagnosis from lymphomatous processes. Careful high power examination in the lower genital tract is necessary to avoid a diagnostic error. Clinical presence of a mass lesion and deep invasion of monomorphic lymphoid-like cells are the main morphological criteria distinguishing malignant lymphoma from lymphoma-like lesions and immunohistochemical staining clearly helps pathologists in their attempts at differential diagnosis.

About 33% of NHL arise in tissues other than lymph nodes, spleen, Waldeyer's ring and thymus and these are referred as primary extra nodal lymphomas.[5] Cervical lymphoma presents either as primary or systemic involvement. In our study only cervix was involved. The important point is that the lymphomas are present as initial presentation in the female genital tract or extra cervical involvement, the diagnosis can never be achieved clinically. The majority of the NHLs arising from the uterine cervix is represented by high grade lymphomas. Diffuse large B cell lymphoma is the most common subtype of NHL, but other subtypes have been described, including follicular lymphomas. Immunohistochemical stains are invaluable in aiding the distinction of many of these entities. In our case, the tumor was positive for CD 20 and common leucocyte antigen (LCA) and negative for CD 3 and cytokeratin.

The incidence of non-Hodgkin's lymphoma, especially extra nodal lymphoma, has increased in recent decades. The etiology of NHL has been hypothesized to include infectious agents such as the human immunodeficiency virus (HIV), immunosuppressive therapies, environmental exposures to pesticides and pollutants, and improved diagnostic techniques.[6] Our case was not associated with HIV.

Lymphomas of the cervix generally occur in the fifth decade with a wide age range of 20 to 80 years. Benign and malignant cervical processes often have a polypoidal appearance, endocervical mucosa polyp represents the most common in this site. Abnormal vaginal bleeding is the second most common presenting symptom.[7] Other presenting complaints include vaginal discharge, dyspareunia or pelvic pain. B symptoms like fever, weight loss and peripheral lymphadenopathy was not a feature in our case.

The cervical cytology in these patients with lymphoma is negative, which is probably due to the fact that most lymphomas in this location are subepithelial unless there is ulceration.[8] In such cases, this type of abnormality is commonly underdiagnosed.

Frequent misdiagnosis in cervical lymphomas include sarcoma, poorly differentiated carcinoma, neuroendocrine tumors and chronic inflammation.[4] Lymphomas involving the extranodal lymphomas are staged by lymphoma staging classification i.e. Ann Arbor classification. The patient fulfilled the criteria of stage 1 disease.

Cervical lymphoma generally has a good prognosis as compared to nodal lymphomas, with an overall median survival of 4 years. Extent of disease, size of primary tumour and the type of lymphoma are significant prognostic features. Patients with advanced-stage diffuse large B-cell lymphoma are primarily treated with chemotherapy. Radiotherapy is considered, if there is bulky disease at presentation.[9]

Conclusion:

Although primary non Hodgkin's lymphoma is rare, the disease may be encountered more frequently as the incidence of extranodal non-Hodgkin's Lymphoma is increasing. Cervical cytology may be undiagnostic in such cases. Therefore, Clinicians and pathologists should be aware of this diagnosis in patients presenting with abnormal vaginal bleeding and negative papaniculaou test and to include cervical lymphomas in the differential diagnosis of gynaecological cancers.

References:

1. John CK et al. Clinicopathologic features of six cases of primary cervical lymphoma. *American Journal of Obstetrics and Gynecology*. 2005;193(3 Pt 1):866-72.
2. Grace A, O'Connell N, Byrne P, et al. Malignant lymphoma of the cervix: An unusual presentation and a rare disease. *Eur J Gynecol Oncol.* 1999;20:26-28.
3. Crisp WE, Surwit EA, Grogan TM, Freedman MF. Malignant pelvic lymphoma. *Am J Obstet Gynaecol.* 1982;143:69-73.
4. Charlton I, Norris J, King FM. Malignant reticuloendothelial disease involving the ovary as a primary manifestation. *Cancer.* 1974;34:397-407.
5. Moller MB, Pederson NT, Christenensen BE. Diffude large B cell lymphoma: clinical implications of extranodal versus nodal presentation- a population based study of 1575 cases. *Br J Haematol* 2004;124:151-159.
6. Trenhaile TR, Killackey MA. Primary pelvic Non-Hodgkin's Lymphoma. *Obstetrics and Gynecology.* 2001;97:717-720.
7. Aozasa K, Saeki K, Ohasawa M et al. Malignant lymphoma of the uterus: Report of seven cases with immunohistochemical study. *Cancer.* 1993;72:1959-1964.
8. King J, Elkhalifa M, Michael C. Malignant lymphoma identified on cervical cytologic smear with immunophenotypic analysis. *Acta Cytologica* 1996;40:1228.
9. Stroh EL, Besa P, Cox D et al. Treatment of patients with lymphomas of the uterus or cervix with combination chemotherapy and radiation therapy. *Cancer.*1995;75:2392-2399.