A CASE OF PRIMARY UTERINE LYMPHOMA

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ABSTRACT: A post menopausal lady presented with lump lower abdomen and bleeding per vaginum. USG revealed diffuse enlargement of the uterus. On hysterectomy, a grossly enlarged uterus with cystic left ovary were found. Hysterectomy was done and uterus with bilateral adnexa submitted for histopathological examination. Microscopic examination of the body of uterus revealed sheets of small lymphoid cells were found to replace the endo- and myo-metrium. These cells have small nuclei with clumped chromatin, and no prominence of nucleoli. They are not forming lymphoid follicles or germinal centers. Similar lymphoid cells were also found in the left ovary admixed with ovarian stroma. On IHC these cells were found to be CD45, CD20, CD23 positive, and negative for CD3, CK and SMA. The case is diagnosed as a primary small lymphocytic lymphoma of uterus with left ovarian spread.

Keywords: Uterus, lymphoma.

Lymphoma is a type of cancer that begins in lymphocytes, the cells of immune system. Two primary types of lymphocytes are found, B and T. Natural Killer cells are another type of lymphocyte. Lymphoma occurs when either of these lymphocytes transforms and begins to multiply at an uncontrollable manner. Abnormal lymphocytes gather in one or more lymph nodes or in lymphoid tissues and eventually they form a tumor. Then these tumors grow and invade the surrounding tissues and organs. So lymphomas are neoplastic proliferation of lymphoid tissues (Robbins and Cotran 2010).

There are two primary types of lymphoma are found - Hodgkin lymphoma (HL) and non Hodgkin lymphoma (NHL). Hodgkin lymphoma develops from a specific abnormal lineage of B cells and non Hodgkin lymphoma may derive from either abnormal B or T cells. The vast majorities of lymphoid neoplasms are B cell origin, remainder being T cell tumors, only rarely tumor of NK cell origin encountered. (Steven et al. 2008).

Primary lymphomas of the female genital tract are rare (Joo et al. 2000) and Primary uterine Non–Hodgkins Lymphoma (NHL) is very rare (Hariprasad et al 2006). An extensive histopathological study reviewing 1766 numbers of nodal and extra-nodal cases of lymphomas depicted only 7 cases of uterine origin (Renno et al. 2002). Moreover, most of the diagnosed uterine lymphomas have cervical localization with approximately 100 cases reported. In contrast, the overall number of uterine corpus lymphomas in the literature not exceeds 25 cases (Latteri et al. 1995). It is in accordance with the result of a study on 1467 extra-nodal NHL cases where the frequency of primary uterine NHL cases was 0.002%. Most of the reported cases were diffuse large
B-cell lymphoma (DLBCL), but rarely other histological types were also diagnosed (Vang et al. 2000).

A postmenopausal lady of 62 years old, was presented with lump in lower abdomen with pain and bleeding per vaginum. Tissue specimen was sent after hysterectomy to Department of Pathology, Command Hospital (Eastern Command), Alipore, Kolkata, West Bengal, India for histopathological examination.

The gross specimen (Fig.1) measuring 15 x 10 x 9 cm was received in six cut parts. The cut surface was fleshy and greyish pink. No demarcation between endometrium and myometrium could be made out on gross. In addition, the left ovary showed two nodular areas of 2 cm in diameter.

On Haematoxalin & Eosin staining of the tissue sections, the myometrium (Fig 2a,b,c) was found to be replaced entirely by a mass of small round cells. The cells had round, dark nuclei with scant cytoplasm. Few large cells with vesicular nucleus and prominent nucleoli were also seen. Scant areas with spotty necrosis and fragments of smooth muscles were seen (Fig. 3b). Only few mitotic figures were seen. Endometrium was disrupted and replaced with

Fig. 1: The gross specimen.

Fig. 2(a): Myometrium (H&E stain 40x)

Fig. 2(b): Myometrium (H&E stain 100x).

Fig. 2(c): Myometrium (H&E stain 400x).
Fig. 3(a): Few fragmented endometrial glands were found.

Fig. 3(b): Only few fragmented smooth muscles were seen.

Fig. 4(a): Majority of cells were CD_{20} positive.

Fig. 4(b): Cells were CD_{23} positive.

Fig. 5: The cells were also seen to involve the left ovary.

lymphoid cells. Only an occasional focus with few remaining glands were seen (Fig 3a). These lymphoid cells were seen to be diffusely infiltrating the endocervix sparing the ectocervix. Section from the right ovary was normal. Sections from the left ovary showed partially preserved architecture and partially replaced by these lymphoid cells (Fig.5).

On Immuno-histochemistry, most of the cells were found to be CD_{45}, CD_{20} and CD_{23} positive. Negative for Cytokeratin (CK), Smooth muscle actin (SMA), Estrogen-receptor (ER) and
Progesterone-receptor (PR) (Fig 4a & 4b).

Fox and More (1965) reported a case of primary malignant lymphoma of the corpus uteri diagnosed by clinical and pathological findings of that period. Egyed et al. (2007) reported one diffuse large B-cell lymphoma of the uterine corpus. The final diagnosis of the case was performed basing on the histological and immune-histochemical evaluation of specimen obtained by fractioned cervical and uterine curettage.

Uterine lymphoma usually occurs as secondary involvement of the uterus with established extra-uterine involvement elsewhere. Primary uterine involvement is rare (Egyed et al. 2007).

During further investigations of the present case, the peripheral blood and bone marrow was found normal and by imaging, no other mass lesions were found in the body. Finally, the case was diagnosed as primary small lymphocytic lymphoma of uterus with left ovarian spread.

REFERENCES


