Metachronous carcinoma cervix in a treated case of Non-Hodgkins Lymphoma - A rare case report

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Abstract

The prevalence of Non-Hodgkin lymphomas (NHL) survivors is increasing because of the advances in multimodality treatment approaches which later has become the reason for various late side-effects especially secondary malignant neoplasms. Among these secondary malignancies gynaecological cancers are rarely found in literature. Here we report one previously treated case of NHL in a middle aged female who later developed carcinoma cervix as a metachronous second primary malignancy.

Keywords: NHL, Metachronous, Carcinoma cervix.

Introduction

Non-Hodgkin lymphomas (NHL) are a heterogeneous group of malignancies of the lymphoid system characterized by an abnormal clonal proliferation of B cells, T cells, or both. According to GLOBOCAN 2018 data NHLs are 11th most common cancers in India with incidence of 28110 cases (2.68% of total). In India, carcinoma of cervix is the second most common cancer in females after breast cancer and is the most common gynaecological malignancy.

Case report

A 54 year old female with no comorbidities presented on 11/11/2010 with complaint of swelling in both sides of neck since 2 months. No other complaints like difficulty in swallowing, pain, fever. Biopsy done outside suggested that secondary carcinomatous depositis. After that, patient presented to Medical Oncology outpatient department in Sri Venkateswara Institute Of Medical Sciences (SVIMS). Endoscopy was normal, Indirect laryngoscopy was normal and direct nasal examination also normal.

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According to GLOBOCAN 2018 data incidence is 96922 cases (9.23% of total and 16.5% of female cancers)[1]. Survivors of NHL patients may rarely had a chance of developing second malignancies especially in gynaecological region.
Review biopsy(RB196/10) suggestive of Non hodgkins lymphoma- diffuse small and large cleared cell type-intermediate grade. On Immunohistochemical examination (IRB 196/10): neoplastic cells were CD20: positive, UCHL-1: T cells shows moderate to intense positivity, Kp-I: moderate to intense positivity, BCL2: moderate to intense positivity, CD10: negative. Suggested the Impression of Diffuse large B cell NHL –High grade.Trephine biopsy: B5417/10(17.12.10): Hypercellular micro normoblastic bonemarrow with neoplastic infiltration.BM Examination BM1184/10( 21.12.10): Hypercellular micro normoblastic bonemarrow with neoplastic infiltration. Chest X ray : normal study.Haemogram was within normal limits.EHCO: LVEF 59%, no RWMA, Normal LV systolic function. Patient treated with 6 cycles of CHOP( Cyclophosphamide, Doxorubicin, Vincristine, Prednisolone) regimen, last cycle on 11/5/2011. After that patient defaulted for 4 years due to her personal reasons. Again patient was presented after 6 years on 25/5/2017 to Radiation Oncology outpatient department with complaints of lower abdominal pain and bleeding per vagina . Physical examination revealed her blood pressure 110/82 mm of Hg , pulse rate 90/min , respiratory rate 14/min. Gynaecological examination suggestive of ulceroproliferative growth of size 4×3 cm arising from cervix. All fornices and upper half of anterior vaginal wall involved and left parametrium medially involved. No involvement of inguinal and supraclavicular lymphnodes. Biopsy done from the growth and diagnosed as infiltrating moderately differentiated squamous cell carcinoma (Fig.1 & Fig.2). Patient diagnosed as carcinma cervix stage IIB and metastatic workup done.

Fig.1: Photomicrograph showing moderately differentiated malignancy (Haematoxylin and eosin ×40)

Fig.2: Photomicrograph showing infiltrating moderately differentiated squamous cell malignancy (Haematoxylin and eosin ×100)
Routine blood investigations such as haemogram, renal function test, liver function test are normal. Patient is diagnosed positive for Hepatitis B antigen HBsAg by ELISA test and human papilloma virus DNA detected from cervical growth by nested multiplex polymerase chain reaction (NM-PCR). FDG PET CT done in view of previous history of non-hodgkins lymphoma suggestive of metabolically active soft tissue density lesion in cervix with bilateral parametrial fat stranding noted with pyometra.

Metabolically active left external iliac (1.6×1.2 cm) and aortocaval (1×0.7 cm) lymphnodes present. No evidence of distant metastasis (Fig.3). Patient was admitted for radiotherapy and treated with external beam radiotherapy of dose 50.4 Gy (grey) in 28 # (fractions) @ 1.8 Gy per fraction and with three fractions of intracavitary brachytherapy @ 7 Gy per fraction, completed treatment on 01.10.2017. Now she is on followup, feeling well without any recurrence or progression, last followup was on 22.09.2018.

**Fig.3:** Maximum intensity projection image(A). CT axial image(B) and fused PET-CT image(C) Showing intense FDG uptake in cervix. CT axial image(D) and fused PET-CT image(E) showing intense FDG uptake in left external iliac lymphnode.

**Discussion**

NHL is a heterogeneous group of malignancies characterized by an abnormal clonal proliferation of T-cells, B-cells or both. The majority of the adult NHLs are of B-cell origin[2]. NHLs range from indolent malignancies (low-grade histologies) to rapidly growing and highly aggressive tumors (high-grade histologies). The overall median age at presentation is 42 years and the incidence increases with advancing age. NHL usually involves the lymph nodes but can involve extranodal sites and can occur in the stomach, skin, lung, salivary glands and rarely in the mouth[3].

The main symptom of NHL is swelling of lymph nodes in the neck, under the arms or in the groin. Other symptoms can include fever, night sweats, fatigue, abdominal pain and unexplained weight loss. Lymphomas usually are painless; lymph nodes may get larger slowly over a long time before the patient notices. Fever commonly associated with lymphoma may appear and disappear for several weeks[4].
Chemotherapy with or without radiation therapy has been the mainstay of non-Hodgkin’s lymphoma (NHL) treatment. In the past few years, evolving therapies have led to improved long-term survival for some histological subtypes, and the introduction of monoclonal antibody treatments has further improved the prognosis of indolent[5-7] and aggressive [8-12] B-cell NHL. High-dose chemotherapy followed by autologous stem-cell transplantation (ASCT) and allogeneic bone marrow transplantation has emerged as another promising approach for the treatment of relapsed lymphoma or as part of planned treatment of neoplasm with a poor prognosis [13-16]. As a result of these advances, the prevalence of NHL survivors is increased and late side-effects of treatment such as secondary malignant neoplasms (SMNs), ischemic heart disease, anthracycline-related cardiotoxicity, and radiation or bleomycin-induced pulmonary toxicity[17].

Results from a metaanalysis including 23 studies of NHL patients showed that there is a higher risk of developing secondary malignancies in NHL survivors compared to general population, the Pooled relative risk for overall and for solid tumors were 1.88 and 1.32, respectively[18]. Among solid tumors lung cancers are most common followed by skin, head and neck cancers[19], hence the development of carcinoma cervix is relatively rare compared to other malignancies. To the best of our knowledge this is a one of the rare case reports of metachronous carcinoma cervix in treated case of Non Hodgkins Lymphoma.

Conclusion

As gynaecological malignancies such as carcinoma cervix is rarely reported as metachronous second primary malignancy in a previously treated case of NHL which can be attributed to previous treatment or a sporadic event, the possibility of its occurrence should not be underestimated, there by the timely screening and early diagnosis of carcinoma cervix as second neoplasms can improve the survival and quality of life in NHL survivors.

References


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