NSCLCas Second Primary malignancy 10 years later in a treated case of Ca Cervix IIB: Case report from a tertiary cancer Centre

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Abstract:

Background: Ca cervix is a major cause of morbidity and mortality, particularly in developing countries like India.Itsecond most common cancer in females after breast cancer.2nd malignancy site after treatment of ca cervix can be related to radiation dose and radiation portal used e.g ca bladder, ca vagina, ca rectum, it can also be related to same etiological factor such as smoking e.g lung/bronchus/esophageal cancer or HPV related cancers like vagina, vulva, or anal cancer.

Case Report: We report a case of 56-year old female patient who was diagnosed as CA Cervix IIB and treated 10 years ago in our institute with 45Gy/20#/4 weeks of radiation therapy along with low dose rate intra cavitary brachytherapy consisting of 35Gy. She was on regular follow up for 5 years after which she defaulted and finally reported in department of pulmonary medicine with the chief c/o hemoptysis, She was diagnosed as a case of NSCLC with skeletal mets and pathological #proximal tibial shaft. Patient treated with palliative intent with stabilization of fracture, chemotherapy, and radiotherapy.

Results: After adequate palliation patient is symptomatically better however prognosis remains dismal.

Key Word: 2nd Primary malignancy, NSCLC, Ca Cervix

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I. Introduction

CA cervix is the second most common malignancy among women worldwide¹. The survival rate in this malignancy continues to increase so it is imperative to learn about 2nd malignancies associated with this cancer. These 2nd cancers are either (i) site specific i.e. related to the radiation portal used/radiation dose related e.g ca vagina, ca vulva, ca rectum(ii)shared etiological agents like smoking (lung/bronchus/esophagus) or HPV related like ca vagina,ca vulva, ca anal canal. Advances in screening, improved surgical techniques, chemotherapy and newer radiation techniques have considerably improved survival but anyhow the outcome remains inferior³ once the 2nd malignancy sets in. Regular follow up for the patient is also a challenge for clinicians in developing countries partly due to logistic /monetary issues and partly when it is difficult on the part of the patient to acknowledge the need of follow up as patient is symptom free for years together.

II. Case Report

We report a case of 56-year-old female registered in our Centre 10 years back with complaints of bleeding per vaginum, discharge per vaginum and lower abdominal pain. There was no h/o cough/hemoptysis/shortness of breath. Normal bowel bladder habits and no comorbidities. She was postmenopausal, para3, non-vegetarian, did not consume alcohol, nonsmoker but h/o 2nd hand smoke and use of wood stove at house. Her general physical examination and systemic examination was with in normal limits. In per-vaginal and per-speculum examination cervix was irregular with hard induration, bleeds on touch, all fornices involved. Per-rectal examination revealed rt parametrium involvement till medial 2/3rd and left parametrium was minimally involved. Biopsy from the cervix revealed Non keratinizing squamous cell carcinoma. As per FIGO she was staged as ca cervix Stage IIB. She was treated with External beam radiation therapy (EBRT) 45Gy/20#/4 weeks along with low dose rate intra cavitary brachytherapy consisting of 35Gy. Patient was put on follow up. She continued follow up for 5 years and then defaulted.

Approximately 10 years post treatment completion patient reported in department of pulmonary medicine with the chief complaint of hemoptysis. Workup was done at the same department. Fiber optic bronchoscopy revealed fleshy growth occluding the right bronchus intermedius. HPE from the growth was suggestive of

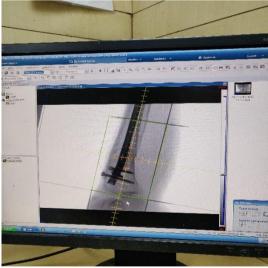
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Non-small cell lung cancer with possibility of squamous cell carcinoma. CECT Thorax was suggestive of heterogeneously enhancing mass measuring 5.1x4.5x3cm in rt lower lobe with necrotic mediastinal Lymphadenopathy.PET Scan was done for metastatic workup which revealed lytic lesion L2 vertebra (T4N2M1a). Patient was planned on palliative chemotherapy based on paclitaxel and carboplatin, but she started complaining of pain leg left side. On examination there was tenderness with? #left Tibia. Orthopedic review was taken, and diagnosis of pathological #tibial shaft was made.Surgery for stabilization of the joint (CRIF with tibial nail)was done. After post op recovery patient completed total of 6 cycles of chemotherapy. She was given palliative radiotherapy for lytic lesion in lumber spine and operated rt tibial site. (Image I). Patient has subjective improvement in her symptoms after receiving palliative rx.



Figure I (A) ,(B) Patient undergoing simulation for palliative radiotherapy for a lytic lesion in Rt Tibia post CRIF with tibial nail.



(C) (Simulation) portal image of Rt tibial #. We can see tibial nail use for CRIF.

III. Result

As the patient reported with metastatic lung cancer with pathological fracture right tibia as 2^{nd} malignancy ten years after diagnosis and treatment of ca cervix, there was considerable decline in the quality of life and increase in morbidity. The intent of treatment was shifted to palliation in view of metastatic disease. Patient had significant improvement after palliative procedures for tibial stabilization, palliative radiotherapy, and chemotherapy: however, the prognosis remains dismal.

IV. Discussion

Ca cervix is a common cancer in daily OPD practice. Latest advances in screening, radiotherapy techniques, chemotherapy and surgery has led to increased survival and decline in incidence of ca cervixeven in developing countries like India (as per "Cancer Statistics, 2020: Report From National Cancer Registry Programme, India")⁴. Due to increased survival we often encounter 2nd primary cancers. In a study by Chaturvedi AKet al⁵Compared with the general population, in both radiotherapy received and no-radiotherapy received groupsrisks for HPV-related cancers (of the pharynx, genital sites, and rectum/anus) and smoking-related cancers (of the pharynx, trachea/bronchus/lung, pancreas, and urinary bladder) were increased.

In this patient as well, there was h/o 2nd hand smoke at home. As the patient belonged to rural area where wood stoves are still utilized for cooking purposes. This is already a risk factor for smoking related cancers. 6

V. Conclusion

As the number of cancer survivors is on rise it is imperative that we better understand the long-term consequences of these survivors. There is a need for continued cancer surveillance among cervical cancer survivorsto achieve the goal of "early diagnosis and treatment" for second cancers. For women with cervical cancer, the 10-year overall survival is poorer in cases with a second primary cancer.

References

- [1]. Bosch FX, de Sanjose S. Chapter 1: human papillomavirus and cervical cancer—burden and assessment of causality, J Natl Cancer Inst Monogr, 200331(pg. 3-13)program (NCEP) expert panel on detection, evaluation, and treatment of highblood cholesterol in adults (adult treatment panel III) finalreport. Circulation. 2002;106(25, article 3143).
- [2]. Rabkin CS, Biggar RJ, Melbye M, Curtis RE. Second primary cancers following anal and cervical carcinoma: evidence of shared etiologic factors, Am J Epidemiol, 1992, vol. 136 (pg. 54-8)
- [3]. Cai T, Mazzoli S, Bartoletti R. Re: Second cancers among 104,760 survivors of cervical cancer: evaluation of long-term risk. J Natl Cancer Inst. 2008 Apr 16;100(8):600; author reply 600-1. doi: 10.1093/jnci/djn087. Epub 2008 Apr 8. PMID: 18398096.
- [4]. DOI: 10.1200/GO.20.00122 JCO Global Oncology no. 6 (2020) 1063-1075. Published online July 16, 2020.PMID: 32673076
- [5]. Chaturvedi AK, Engels EA, Gilbert ES, Chen BE, Storm H, Lynch CF, Hall P, Langmark F, Pukkala E, Kaijser M, Andersson M, Fosså SD, Joensuu H, Boice JD, Kleinerman RA, Travis LB. Second cancers among 104,760 survivors of cervical cancer: evaluation of long-term risk. J Natl Cancer Inst. 2007 Nov 7;99(21):1634-43. doi: 10.1093/jnci/djm201. Epub 2007 Oct 30. PMID: 17971527
- [6]. Hosgood HD 3rd, Boffetta P, Greenland S, et al. In-home coal and wood use and lung cancer risk: a pooled analysis of the International Lung Cancer Consortium. Environ Health Perspect. 2010;118(12):1743-1747. doi:10.1289/ehp.1002217\
- [7]. Lim MC, Won YJ, Lim J, et al. Second Primary Cancer after Diagnosis and Treatment of Cervical Cancer. Cancer Res Treat. 2016;48(2):641-649. doi:10.4143/crt.2014.326

Dr Jyoti Sharma, et. al. "NSCLCas Second Primary malignancy 10 years later in a treated case of Ca Cervix IIB: Case report from a tertiary cancer Centre". *IOSR Journal of Dental and Medical Sciences (IOSR-JDMS)*, 19(11), 2020, pp. 24-26.