

Case Report

Double primary malignant tumor in a centenarian female: Case report and review of literature

Ankur K Shrivastava¹, Siddhartha Nanda²

¹Department of Ophthalmology, All India Institute of Medical Sciences, Raipur
Department of Radiation Oncology, All India Institute of Medical Sciences, Raipur

Abstract

A hundred and three year old female patient was evaluated for ulcer over the nasion area and a mass arising from the right upper eyelid, appearing two months apart. Histopathology revealed nasion ulcer as basal cell carcinoma while right eyelid mass was diagnosed as poorly differentiated squamous cell carcinoma. Based on these findings and the time gap between two lesions a diagnosis of synchronous double primary malignant tumor was made.

Although the prevalence of multiple primary malignant tumor is highest in breast, colo-rectum and prostate cancer we report a rare case of double primary malignant tumor of the eyelid and nasion in a centenarian female.

Key words: Multiple primary malignant tumor, basal cell carcinoma, squamous cell carcinoma

Introduction

Multiple primary malignant tumors (MPMT) are defined as two or more unrelated primary neoplastic lesions that occur in a person either simultaneously or one after another. Incidence of such malignancies are reportedly increasing. Mostly MPMT are confused with metastases or tumour recurrence (Cigna et al, 2011). However histologically metastatic lesions bear pathological similarity to the primary lesion in contrast to MPMT where the lesions are of completely different histology. The prevalence

of MPMT is highest in breast, colo-rectum and prostate (Mariotto et al, 2007). We present a case of synchronous double primary malignancy of head and neck region in a 103 years old female. To the best of our knowledge a case of synchronous double primary in a centenerian female has not been reported in literature till date.

Case report

A hundred and three years old lady presented to the oncology out patient department with history of gradually increasing ulcer over nasion area with occassional bleeding since four months. Two months after this she noticed a fleshy mass at right upper eyelid which was also gradually increasing in size and was associated with mild pain, lacrimation and discharge. On examination the nasion ulcer was about 1.5 cm in diameter, had everted and rolled out edges (Figure 1).

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Corresponding author

Dr. Siddhartha Nanda,
Associate Professor,
Department of Radiation Oncology,
All India Institute of Medical Sciences, Raipur, C.G, India
Phone: +91-9713711888
E-mail: sidnanda@yahoo.com

Right upper eyelid mass was about 0.8×1 cm in size which was irregular, fleshy, nonpedunculated, arising from conjunctival surface and was associated with copious discharge (Figure 2).

There was no ulceration or active bleeding from the eyelid lesion. Neck palpation did not reveal any significant lymphadenopathy. There was no history of diabetes mellitus, hypertension or any addiction. Her vital parameters, complete blood count, liver and kidney function tests were within normal limits.

Histopathological examination (HPE) of lid lesion revealed poorly differentiated squamous cell carcinoma (Figure 3) while that of nasion showed basal cell carcinoma (Figure 4).

Clinically the right eyelid lesion was stage IB and that of nasion was stage I. Based on the histopathological findings and the time of occurrence of these lesions, within 2 months of each other, a diagnosis of synchronous double primary malignancy was made. Computerised tomography scan of chest and whole abdomen did not reveal any evidence of distance metastasis. The lid lesion was managed with full thickness excision followed by reconstruction using Cutler-Beard technique. Post operative HPE showed no residual tumour with clear surgical margins. Patient was referred back to Oncology department for management of nasion ulcer for which she received external beam radiation therapy (55Gy/20 fractions over 4 weeks). Six months post-treatment follow up showed no evidence of disease at both the primary sites.



Figure 1

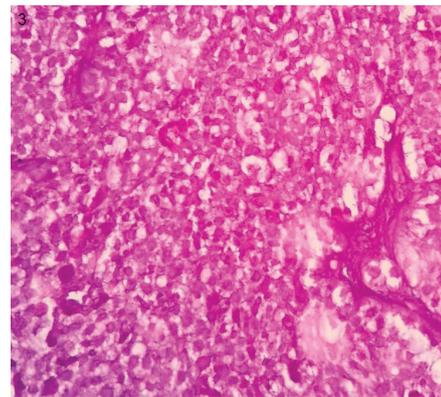


Figure 3



Figure 2

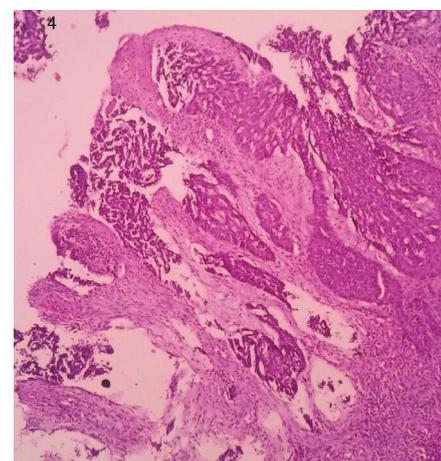


Figure 4

Discussion

Multiple primary malignant tumors are characterized by incidence of more than one synchronous or metachronous cancer in the same individual. Billroth, in 1889 was the first to report a case of double primary tumor however the criteria for diagnosis of “multiple primary malignant tumors” was laid down by Warren and Gates in 1932 (Table-1) (Warren et al, 1932).

1. Histological confirmation of malignancy in both the index and secondary tumors.
2. There should be at least 2 cm of normal mucosa between the tumors. If the tumors are in the same location, then they should be separated in time by at least five years.
3. Probability of one being the metastasis of the other must be excluded.

Various cases of double primary tumor have been reported in literature which is classified into two categories depending upon time gap between the diagnoses (Hulikal et al, 2012). Malignancies presenting within six months of each other are defined as synchronous whereas those presenting more than six months apart as metachronous (Irimie et al, 2010). The incidence of second primary tumor is more as compared to that of third and fourth primary malignant tumors (Suzuki et al, 2002). Although exact mechanisms for the development of MPMT have not been precisely identified, published literature showed the probable reasons could be increased life expectancy, genetic predisposition, exposure to carcinogens, previous treatment with radiation or chemotherapy. In a retrospective analysis by Etiz D et al, the incidence rate of multiple primary cancers was found to be 1.2% (Etiz et al, 2017). As per GLOBOCAN 2018 data by International agency for research on cancer the global cancer burden has risen to 18.1 million cases (Bray et al, 2018). This reflects that with this increase in global cancer incidence,

MPMT's will also rise significantly. Also according to Demandante et al, the incidence of MPMT increases with age (Demandante et al, 2003). The present case highlights the importance of advancing age as an independent risk factor and hence need for routine screening in elderly patients when an index cancer is diagnosed.

Conclusion

Thus to conclude any patient diagnosed with cancer should undergo a thorough clinical evaluation and metastatic workup to rule out multiple primary tumor. A high index of suspicion of multiple primaries should be kept in mind while dealing with elderly patients. Latest diagnostic modalities like Positron Emission Tomography – Computerised Tomography (PET-CT) scan, nuclear scans, specific tumor markers and immunohistochemistry will aid in earlier diagnosis of occult malignancies. However, further studies including larger patient data base are required for better understanding of MPMT.

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