

CML presenting synchronously with squamous cell carcinoma of cervix: A case report

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Abstract

Case Presentation: A 45-year-old female presented to out patient clinic of Radiotherapy with a chief complaints of bleeding per vaginum for last 6 month and foul smelling discharge per vaginum for last 5 months. The cervical biopsy was reported as squamous cell carcinoma (moderately differentiated). Her general physical examination revealed pallor only. Per speculum examination examination showed 3.5x 3 cm cervical lesion with involvement of upper 1/3rd of anterior vaginal wall. Patient was staged as FIGO IIA. Peripheral smear and bone marrow biopsy was suggestive of CML in chronic phase. The patient received a radical course of external beam radiotherapy (EBRT) with concurrent weekly cisplatin 40mg/m² followed by HDR brachytherapy. We report here a rare case of CML with carcinoma cervix.

Keywords: Chronic myeloid leukemia, Cervical cancer.

Case Presentation

It is a case of a women 45 years old, who came to the radiotherapy OPD with the chief complaints of bleeding and discharge per vaginum for last 6 and 5 months respectively. According to her she was non-smoker and non-alcoholic. She was para 3 with first child birth at the age of 18 years and last childbirth 20 years back. Histopathological report from cervical growth was suggestive of squamous cell carcinoma (moderately differentiated). During general physical examination pallor was found. On per speculum examination, there was a 3.5 x 3 cm growth present over the cervix with involvement of upper 1/3rd of anterior vaginal wall. On bimanual digital examination vaginal fornices were free, no parametrial involvement and rectal mucosa was free of disease. Cystoscopy and metastatic work-up were normal. The patient was staged as FIGO IIA. Blood investigation report was as follows: Hemoglobin – 7 grams %, Total leukocyte counts – 147000/cumm, Platelet count – 650000/cumm. Differential counts were: Myelocytes – 21%, Metamyelocytes – 9%, Blast – 3%, Band forms – 9%, Neutrophils – 52%, Eosinophils – 4%, Basophils – 1%, Lymphocytes – 1%. However, her symptoms are only related to the growth over the cervix, but because of her blood investigation report she was advised for bone marrow biopsy. Biopsy report of bone marrow and peripheral blood smear revealed CML in chronic phase. The patient was planned for EBRT with weekly, concurrent cisplatin 40 mg/m² followed by HDR brachytherapy along with the treatment for CML simultaneously. For the treatment of CML, after FISH (fluorescence in situ hybridisation) analysis. During the course of treatment, patient could not receive all cycles of concurrent chemotherapy as she developed leukocytopenia. She completed her radiation treatment in a duration of 9 weeks.

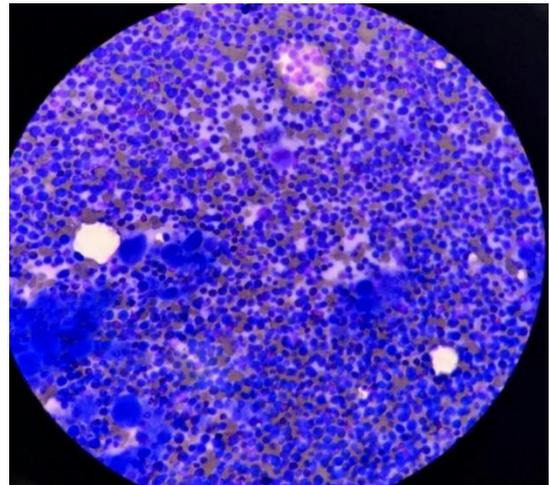


Fig. 1: Bone marrow aspirate showing chronic phase of CML



Fig. 2: Clinical picture of the patient

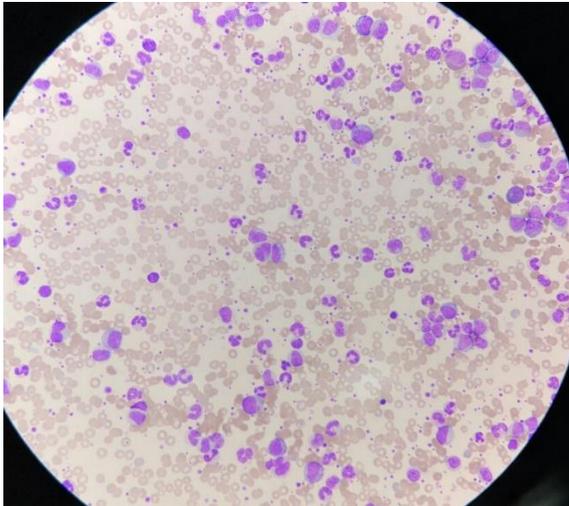


Fig. 3: Peripheral blood smear showing chronic phase of CML

Histopathology report from cervical lesion

Microscopic

Vial 2: Cervical Tissue: Section 10527B/17 shows tissue lined by stratified squamous epithelium displaying full thickness dysplasia. Underlying stroma is infiltrated by malignant epithelial cells. Individual cells are pleomorphic, have high nucleo-cytoplasmic ratio, hyperchromatic nuclei, inconspicuous nucleoli and moderate eosinophilic cytoplasm. Tumor cells are seen infiltrating upto endocervix.

Vial 1: Endometrial Tissue: Section 10527A/17 shows mostly hemorrhage along with tumor fragments with morphology as described above.

Diagnosis

Vial 1&2: Squamous cell carcinoma (Moderately Differentiated)

Discussion

Most studied human malignancy is the CML (Dohner et al., 2015).¹ There are three phases in CML: chronic phase to begin with and followed by accelerated phase and blast crisis. After the treatment there is a reduced NK cytotoxicity in CML patients when compared to normal healthy population (Dabholkar M et al., 1986),² so these patients are more susceptible to other malignancies. Use of imatinib and hydroxy urea has been associated with the incidence of cases of squamous cell carcinoma (Panuk GE et al., 2003).³ Two cases of squamous cutaneous epithelial carcinoma has been reported over two years of initiation of imatinib treatment in CML patients (Baskaynak G et al., 2003).⁴ 200 patients were reviewed in a study who were treated for chronic granulocytic leukemia and in that study 6 patients had a secondary synchronous or metachronous neoplasm and none was the squamous cell carcinoma of the cervix (Gola et al).⁵ Synchronous malignancy of carcinoma penis and CML has been reported (Ganapule et al., 2014).⁶ Case report of CML with multiple myeloma (Lee et al.,

2017)⁷ and breast carcinoma (A Bahl et al., 2010)⁸ has also been published. Synchronous CML and cervical malignancy has been found in our patient.

Conclusion

Here we are reporting a case of CML presenting synchronously with cervix malignancy (squamous cell carcinoma). This is a rare association as a vigorous search of the available literature has been done which has shown few reported cases of CML having a synchronous or metachronous association with other malignancies. Its indeed the first in literature of CML presenting synchronously with squamous cervical malignancy on the basis of application of our best knowledge.

Conflict of Interest: None.

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