# An extraordinary case of four primary tumors in the same patient, involving the uterine cervix, lung, skin, and rectum

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**Summary**

Four primary cancers in one patient are fairly rare. Here we present a case of four primary tumors in such a patient. These cancers were cervical carcinoma and lung carcinoma, which occurred synchronously, and basal cell carcinoma of the skin and rectal carcinoma which occurred metachronously. A successful resection of two synchronous and two metachronous cancers, which has never previously been reported in this specific combination, is described.

Key words: Four primary malignancies; Surgical management.

## Introduction

The frequency of synchronous malignant tumors ranges from 2 to 6.3% of all cancers [1, 2]. Among the known combinations of synchronous cancers in female patients, a combination of gastric and uterine cancers are the most frequently observed, followed by the combination of gastric and thyroid cancers. Rabkin et al showed that relative risk for cervical cancer after anal cancer is 1.3 and same study reported the relative risk of lung cancer after anal cancer as 2.5 [3]. There are few reports about synchronous cancers in females including the genital tract [4, 5]. Here we report four different types of tumors of which two were synchronous and the other two metachronous.

## Case report

Mrs. S.E., a 49-year-old housewife was first seen by a colleague in 1990. On that occasion she was having rectal bleeding, and was operated on for rectal carcinoma. Tumor type was found to be well-differentiated rectal adenocarcinoma. Surgical margins were clear but there were three metastatic lymph nodes, 5000-cGy adjuvant radiotherapy with FAM (Flourouracil+Adriamycin+Methotrexate) chemotherapy were applied. After that operation and adjuvant therapy she had no complications or relapse of rectal carcinoma for nine years but during the adjuvant therapy for rectal carcinoma, nearly three months after the first operation, she complained of a lesion in the right cheek. An excisional biopsy from her right cheek was done at the Dermatology Department and it was reported as basal cell carcinoma of the skin. Only follow-up for the skin cancer was planned and she was followed-up by both departments regularly. In February 1999 during the control of our patient there was no pathology at abdominopelvic ultrasonography, and tumor markers were all within normal ranges. Other laboratory tests (mammography, bone syntigraphy, blood count, liver enzymes, renal function tests, etc.) and clinical exam were found to be normal. Two months later at follow-up a lesion was found on the antero-posterior X-ray of the lung and computed tomography was done. A 3-cm wide solitary lesion located in the apical segment of the upper lobe of the right lung was reported and the patient was scheduled to have an operation on the lung. At the abdomino-pelvic tomography, which was done for preoperative evaluation, a pelvic mass was seen, and the patient was referred to our clinic.

In our evaluation a gross cervical lesion was found on pelvic examination and FIGO stage was evaluated as IB2. A colposcopy- directed biopsy was done on the lesion. Pathology of the biopsy was reported as squamous cell cancer of the uterine cervix, thus two consequent operations were planned; thoracic surgery was done first in October 1999. Right lobectomy was done by the Department of Thoracic Surgery because the frozen specimens was reported as a primary tumor of the lung rather than metastasis. Pathologic evaluation of the surgical specimen was reported as anaplastic small cell cancer of the lung. Surgical margins were clear of tumor, pleura was intact and there were no metastatic lymph nodes in the pathologic evaluation. One month after this operation a Type III hysterectomy + bilateral salphingo-ophorectomy with bilateral pelvic-paraaortic lymphadenectomy was done by our gynecologic oncology team. The pathology of the specimen was reported as squamous cell carcinoma of the cervix. There were no poor pathologic prognostic parameters for cervical carcinoma and no additional therapy was planned. During the past year she was followed closely and no additional complaint or finding has been reported.

## Discussion

Four primary tumors in one patient in a ten-year time period is not a common event. Despite these four cancers which were all known as histological subtypes that have a poor prognosis, our patient was diagnosed at early stages on every occasion and surgical excision of the tumors was enough for therapy. No known etiologic relation of these tumors or any oncogenetic theory to explain the concomitant occurrence of these tumors has been reported, but there is a great need for studies to explain

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the factors that caused those four tumors to occur in the same patient. Different types of tumors of different organs can be cured surgically if diagnosed at early stages and the patient can survive despite four cancers and four surgical operations.

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