CASE REPORT

Synchronous Renal Cell Carcinoma with Carcinoma Cervix: An Unusual Clinical Presentation

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ABSTRACT

Background: Cervical cancer (CC) is the second most common cancer among women in India, while renal cell carcinoma (RCC) is the most common malignancy of kidney with a rising trend. Association of RCC with other malignancies, such as bladder and rectal carcinoma, is well known but with pelvic tumors, such as CC, are rare.

Case description: A 45-year-old female P₂L₂ presented with the complain of foul-smelling discharge off and on and intermenstrual bleeding, was diagnosed having carcinoma cervix stage 2A, and later found to have RCC stage T1b on further evaluation. Patient underwent a radical hysterectomy with bilateral pelvic lymphadenectomy with partial nephrectomy. Histopathology of renal specimen showed clear cell carcinoma with infiltrated margins, for which interval complete nephrectomy was performed.

Conclusion: There are only few reports of dual cancers of cervix and kidney in literature. The recent increase in incidence is ascribed to improving imaging facilities.

Keywords: Carcinoma cervix, Renal cell carcinoma, Synchronous malignancy.

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INTRODUCTION

Cervical cancer (CC) is the major healthcare problem all over the world but more so in developing countries. Its incidence has decreased in developing world due to increased routine screening by Papanicolaou (pap) smear. Carcinoma cervix is one of the most common gynecological cancers worldwide, second only to breast cancer.¹ It is a common cause of cancer death in developing countries. 569,847 new cases of CC were diagnosed in 2018 out of which 311,365 women died all over the world.²

Renal cell carcinoma (RCC) accounts for >90% of cancers arising from the kidney and it is the 14th most common cancer.³ The risk of developing antecedent, synchronous, and metachronous primary malignancies is high in patients diagnosed with RCC. Association of RCC with malignancy in prostate, bladder, lung, breast, rectum, malignant melanoma, non-Hodgkin lymphoma (NHL), etc., is common but with other pelvic tumors, such as CC, are rare.

In this case, RCC was found during staging and evaluation of the primary cervical carcinoma and both the malignancies were treated by surgery. So, diagnostic imaging should be used as a standard of care in all pelvic malignancies.

CASE DESCRIPTION

This is a 45-year-old female P₂L₂ who presented with the complain of foul-smelling discharge per vaginum for last 8 months and intermenstrual bleeding for 6 months. Patient denied any significant medical, surgical, and family history.

On per vaginal examination, cervix was replaced by a hard growth of approximately 4–5 cm on posterior lip of cervix. Uterus was normal in size and shape. Bilateral fornices had restricted mobility.

Papanicolaou smear showed superficial and intermediate squamous epithelial cells with moderate number of acute inflammatory cells. Few cells showed mild anisokaryosis.

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Punch biopsy revealed large cell non-keratinizing squamous cell carcinoma.

Computed tomography (CT) scan for staging showed 74 × 64 mm soft mass involving the cervix and extending up to upper vagina with no uterine and pelvic wall extension. Simultaneously, left renal pole showed 45 × 40 mm enhancing solid cystic lesion at lower pole with no involvement of renal sinus, renal vein, renal artery, and Gerota's fascia (Fig. 1). Fine needle aspiration cytology (FNAC) from renal mass was inconclusive.

Patient underwent a radical hysterectomy with bilateral pelvic lymph node dissection along with left radical partial nephrectomy. Cervical histopathological examination (HPE) report showed moderately differentiated squamous cell carcinoma (SCC) and renal specimen showed clear cell RCC with infiltrated margins for which an interval complete nephrectomy was performed.

DISCUSSION

Synchronous malignancies are defined as malignancies diagnosed concurrently or within 3 months of diagnosis of the former. The

Fig. 1: CT scan showing mass lesion both in cervix and left kidney

incidence of multiple malignancies has long been reported in the literature.

Warren and Ehrenreich were the first ones who described multiple malignancies as a separate entity. Their work was based on 1,078 cancer autopsies, in which 40 (3.7%) had primary multiple malignant growths. They found that the risk of developing antecedent, synchronous, and metachronous primary malignancies is high in patients diagnosed with RCC.⁴

Rabbani et al. did study to determine the incidence and nature of multiple primary malignancies in patients with RCC. He found that the number of primary malignancies, including cutaneous malignancies, were at least 1 in 148 patients (26.9%), at least 2 in 34 (6.2%), at least 3 in 6 (1.1%), and 4 in 1 (0.2%) patients of RCC. The malignancies were antecedent in 85 cases (45.0%), synchronous in 74 (39.4%), and subsequent in 30 (16.0%). The most common other primary malignancies were breast, prostate, colorectal and bladder cancer, and non-Hodgkin's lymphoma, although association with carcinoma cervix was not found.⁵

Beisland et al. did national population-based cohort study on multiple primary malignancies in patient with RCC. He found that out of 1,425 patients 287 had primary malignancy other than RCC. Of the 287 other primary malignancy, 100 were antecedent, 53 were appeared synchronously, and 134 subsequently. Five most common synchronous primary tumor were prostate (2), bladder (9), lung (8), breast (6), and colon (4), but primary malignancy of uterus or cervix was not found in this study also.⁶

Shaukat et al. had a similar observation. He presented a series of three cases with a diagnosed pelvic malignancy but further workup revealed a kidney tumor too. Both the malignancies were evaluated individually and diagnosed as two different primary neoplastic lesions. One of them was RCC with carcinoma cervix.⁷

Momah et al. published a case report in which he found synchronous leiomyosarcoma of kidney and SCC of cervix.⁸

Sato et al. did a study of multiple primary malignancies in Japanese patients with RCC and evaluate the incidence, nature, and prognosis of multiple primary malignancies involving RCC in Japan. Of the 319 patients, there was at least one other malignancy in 38 patients (12%). Four patients had two other malignancies. The other malignancies were antecedent in 13, synchronous in 19, and subsequent in 10 patients. No patient had carcinoma cervix.⁹

Renal cell carcinoma is the most common malignancy of kidney and carcinoma cervix is the most common malignancy among women. But synchronous presence of both tumors is rare. Only few such case reports have been published in literature as per our knowledge, which makes this case report worthy.

Early diagnosis of the other primary malignancy is of paramount importance in improving the prognosis. Therefore, in practice of gynecological oncology, one should always bear the thought of the presence of a separate other malignancy and not just metastasis from the earlier found tumor.

CONCLUSION

Simultaneous diagnosis of multiple primary malignancies is a rare phenomenon. Renal cell carcinoma is the most common tumor found in multiple malignancies, though not so commonly reported with pelvic tumors. But few cases have been reported, so it should always be ruled out in a case of pelvic malignancy and vice versa. Since there are no established guidelines for the management of such cases, so this topic requires more research. At present, multidisciplinary approach is used to treat these cases. Early diagnosis is the key to a favorable prognosis.

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