

# Synchronous Carcinoma Cervix with Renal Cell Carcinoma: An Incidental Finding

Dr. Mayank Soni<sup>1</sup>, Dr. Shrutikant Bhatia<sup>1</sup>, Dr. Dhiraj Gupta<sup>1</sup>

<sup>1</sup>Junior Resident, Department of Radiation Oncology, All India Institute of Medical Sciences, Rishikesh – 249002,

## Abstract:-

### ➤ Background

In India, renal cell carcinoma (RCC) is the most frequent kidney cancer with an increasing tendency, whereas cervical cancer is the second most common disease among women. Synchronicity of RCC with other malignancies is not uncommon, but with the cervical cancer is rare.

### ➤ Case description

A 64-year-old, postmenopausal female, presented with complaint of bleeding per vagina and was diagnosed with carcinoma cervix and later on metastatic work-up also diagnosed with right RCC. After multidisciplinary discussion, patient planned for management for cervix then followed by renal lesion. Patient received radical external beam radiotherapy followed by brachytherapy for carcinoma cervix and underwent nephrectomy for right RCC.

### ➤ Conclusion

Synchronous cases of cervical cancer and renal cell carcinoma are very rare. Advancement in diagnostic protocol makes these kind of cases common and multidisciplinary team decisions are required for their management.

**Keywords:-** Carcinoma Cervix, Multidisciplinary, Renal Cell Carcinoma (RCC), Synchronous.

## I. INTRODUCTION

Cervical cancer is the fourth most common cancer in terms of both incidence and mortality in women worldwide, with an estimated 660,000 new cases and 350,000 deaths worldwide in 2022<sup>(1)</sup> and second only to breast in India with estimated cumulative risk of 11.6 for 2022.<sup>(2)</sup> According to GLOBOCAN, mortality is going to increase by 25.4% by 2030, which makes it as a major healthcare problem. Its synchronicity with other primary malignancies is rare, with less than 5% cases only.<sup>(3)</sup>

Renal cell carcinoma (RCC) accounts for 2% of global cancer diagnoses and deaths. Most of RCC are diagnosed incidentally on imaging and survival is highly dependent on imaging, with a 5-year relative survival of 93% for stage I to only 12% for stage IV (metastatic disease). Patients diagnosed with RCC face a high risk of developing antecedent, synchronous, and metachronous primary malignancies. While

RCC often coexists with malignancies in the prostate, bladder, lung, breast, rectum, malignant melanoma, and non-Hodgkin lymphoma (NHL), its association with other pelvic tumours, such as carcinoma cervix, is rare.<sup>(4)</sup>

In this case, RCC was found incidentally during staging and evaluation of the primary cervical carcinoma and both were managed with different modality of treatment. So diagnostic imaging should be included in standard of care for pelvic malignancies and surveyed the other regions as well.

## II. CASE DESCRIPTION

64 year old, postmenopausal female presented to us with complaint of bleeding per vagina since three months. On clinical examination, there was 4 x 4 cm ulceroproliferative growth present on the cervical os, obliterating the all the fornices, limited to upper one-third of vagina and bilateral parametrium was free of disease. Punch biopsy was consistent with the squamous cell carcinoma.

Contrast enhanced MRI of pelvis was suggestive of heterogeneously enhancing lobulated mass lesion (5 x 3.5 x 3.2cm) in the region of cervix extending to the body of uterus superiorly and inferiorly involving the fornices. For metastatic work up, PET-CT scan was done which showed FDG avid heterogeneously enhancing soft tissue density lesion noted in the uterine cervix, extending into upper 1/3<sup>rd</sup> of vaginal canal and also FDG avid left external iliac lymph node. Another positive finding of an ill defined lesion in the right kidney with no significantly increased FDG uptake seen at the inferomedial aspect, measuring 3.1 x 3.7 cm in size, with extension into the renal pelvis.

To evaluate that right renal lesion, contrast enhanced CT was done, that shows lobulated well circumscribed partially exophytic ball-type lesion, infiltrating into adjacent perinephric fat and also invades the corticomedullary junction at mid pole, suggests malignant neoplastic lesion, most likely RCC. (Figure 1,2).

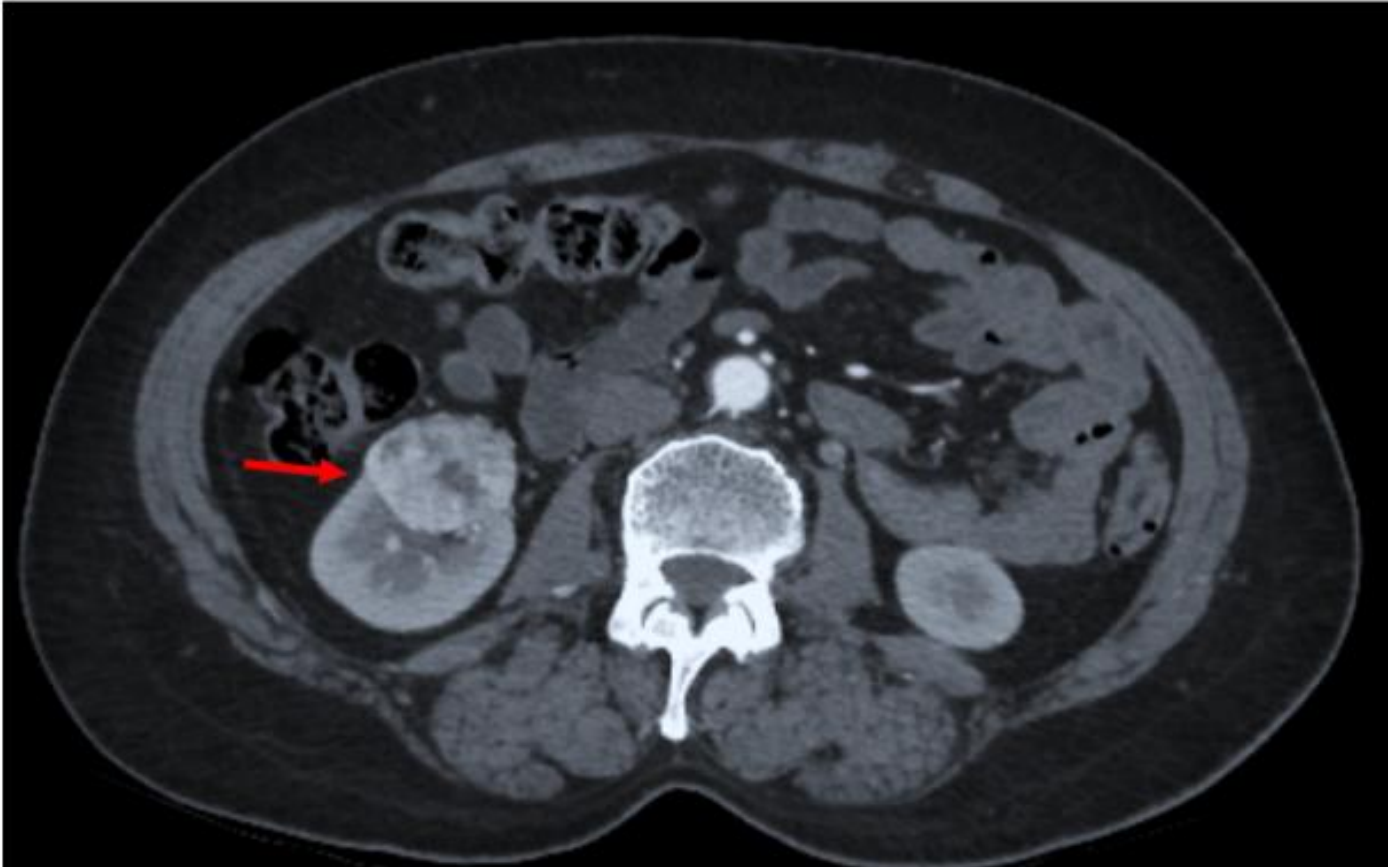


Fig 1 Axial Section of Contrast Enhanced CT Scan Showing Heterogeneously Enhancing Well Circumscribed Lesion in Right kidney (Red Arrow).

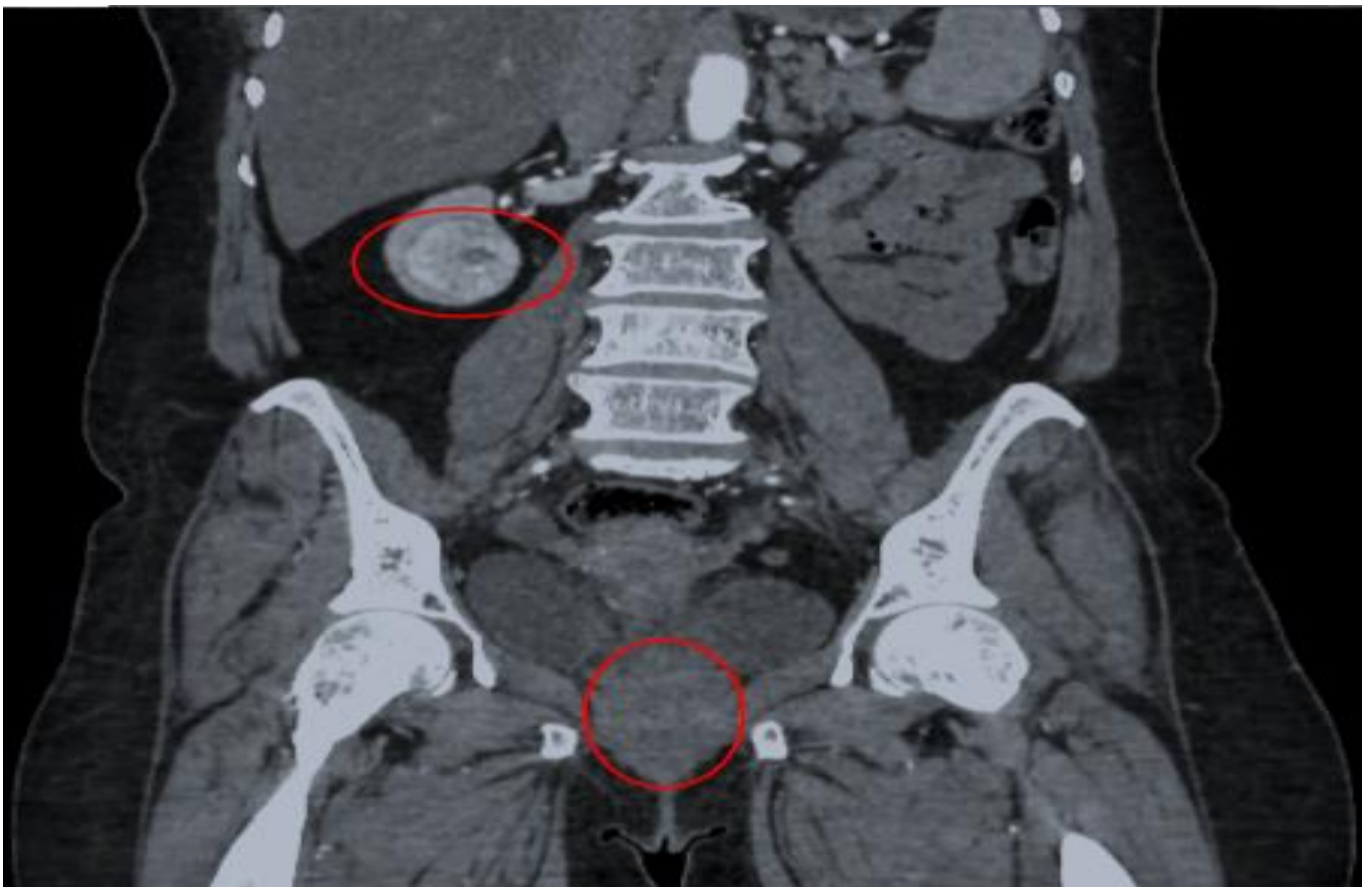


Fig 2 Coronal Section of Contrast Enhanced CT Scan Shows Right Renal Lesion and Cervical Lesion (Encircled).

After multidisciplinary team discussion, consensus was made to manage the cervical cancer first due to its natural history followed by nephrectomy for right renal lesion. For cervical carcinoma, she was treated with external beam radiotherapy with the curative intent, a total dose of 50 Gy in 25 fractions @ 2 Gy per fraction along with weekly concurrent cisplatin 40mg/m<sup>2</sup> was given. She further received three sessions of intracavitary brachytherapy, 7 Gy of each. She completed the treatment and tolerated well. After 4 weeks she was planned for nephrectomy for her renal cell carcinoma.

### III. DISCUSSION

Malignancies detected concurrently or within three months of the diagnosis of the former are referred to as synchronous malignancies. Multiple cancers are not uncommon; this has long been documented in the literature.

Warren and Gates,<sup>(5)</sup> were the first who described multiple primary malignant tumours in 1932 and they reported their prevalence varying from 0.4%-21.0% and association of second primary malignancies with gynaecological cancers being 1.9%-4.3%.<sup>(3,6)</sup>

Wong et al, reported a case series of three synchronous cases of renal cell carcinoma with gynaecological malignancies, but none of them were of cervix.<sup>(7)</sup>

Rabbani et al, presented the data of 551 patients of primary cell carcinoma, 189 (34.3%) had multiple malignancies. 74(13.43%) had synchronous, but only three cases were of gynaecological, which shows that synchronicity of RCC with gynaecological malignancies is very rare.<sup>(8)</sup> Shaukat et al, reported case series of three cases of incidental renal cell carcinoma in pelvic malignancies, out of which one case of carcinoma cervix with RCC. Carcinoma cervix was treated with external beam radiotherapy followed by brachytherapy while nephrectomy was done for RCC.<sup>(9)</sup>

Sharma et al, published a case report of synchronous renal cell carcinoma with carcinoma cervix, both were managed surgically.<sup>(10)</sup>

Renal cell carcinoma is the most common malignancy of kidney and carcinoma cervix is also the one of the commonest malignancy among females. But presence of synchronicity between them is very rare and only few such cases have been reported so far to best of our knowledge which makes this case worthy to report.

### IV. CONCLUSION

Cervical cancer among females is common and its synchronicity with other malignancies also going increase with advance and comprehensive screening protocols in patients. Management of multiple primary malignancies may also pose certain challenges, so it requires a multidisciplinary approach for consensus and adaptation of the treatment strategy.

**Conflict of Interest:** None

**Financial Support:** None

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