

Incidence of Pelvic Kidney in a case of Carcinoma of Uterine Cervix: Difficulties in Radiation Therapy Planning

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We came across an interesting case of a 42 year old female patient of cervical cancer who had a pelvic kidney and managed with radiation therapy in our institution.

Clinical Summary: The patient presented with chief complaints of bleeding per vagina and low back pain on 11th Feb 1997. Per vaginal examination revealed a large exophytic growth over cervix with obliteration of left fornix. Per rectal examination showed a nodular parametrium involved upto lateral pelvic wall on both sides. The histopathological examination showed the features of keratinised squamous cell carcinoma.

Investigations: The haemogram, liver & renal function tests, X-ray chest were within normal limits. Ultrasonogram of abdomen and pelvis showed a cervical mass and left kidney at the level of second sacral vertebra. IVP was done which confirmed the ultrasonographic findings and showed functional left kidney. Tc-99m renal perfusion scan was done by injecting 5 mCi of the dye intravenously and after three hours anterior & posterior images were taken to assess the functional level of the left kidney and to have a baseline information which could later be correlated.

Treatment: In view of a stage IIIB disease, radical radiation therapy was planned after explaining the risk of

irradiation to the left kidney to the patient. A total dose of 50 Gy in 27 fractions was delivered to the pelvis over a period of five and half weeks. Midline shielding was done after 40 Gy. A dose of 30 Gy was delivered by intracavitary RT. A block was given at the upper margin over left iliac fossa to save the upper pole of the left kidney.

Follow up: The patient was on follow up in the combined gynaecology cancer clinic. At the time of reporting, she was three months post RT and without any symptoms. Clinically there was no evidence of disease. She was advised renal function test every six weeks and renal perfusion Tc-99 scan every six months besides other metastatic work ups.

Conclusion: In case of marginal pelvic kidney, some portion of it may be blocked. However in case of a true unilateral pelvic kidney it is very difficult to save it from the radiation port. In such cases the patient may be explained regarding the situation and simultaneously assured about the normal kidney. The surgical options to save the pelvic kidney from radiation port are associated with greater morbidity, hence not preferred.