URETERAL RUPTURE IN A CASE OF CANCER CERVIX

by

K. S. N. Chary, M.S., M.Ch., M.A.M.S.
M. S. Rao, M.S.
B. D. Gupta, M.D., F.F.R.
and
S. Vaidyanathan, M.S., M.Ch., M.A.M.S.

Urological complications such as ureteral obstruction, infiltration of bladder base, vesico-vaginal fistula, and ureteral obstruction occur in 70% of stage III and IV carcinoma cervix patients. The incidence of obstructive uropathy is as high as 38% in stage IV cases. Distal third of ureter is the site of obstruction in more than 90%. This is due to extrinsic compression by tumour deposits in the periureteral lymphatics (van Nagell *et al*, 1978). Patients with carcinoma cervix and obstructive uropathy would require either a proximal urinary diversion or a reconstructive procedure to bypass the ureteral obstruction. Recently, indwelling ureteral stents such as Gibbons catheter (Gibbons *et al*, 1976), and siilicone double J ureteral stent (Finney, 1978) have been introduced which obviate the need for an open operative procedure in some of these patients. When such catheters are not available, nephrostomy is the preferred operation. However, it may predispose to certain complications albeit, uncommonly. We herein describe the first case of ureteral rupture in a patient with advanced cancer cervix in whom nephrostomy had been performed for obstructive anuria.

Departments of Urology and Radiotherapy, Postgraduate Institute of Medical Education and Research, Chandigarh 160 012.

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Case Report

A 36 year old female with squamous cell carcinoma of the cervix was planned for whole pelvis radiation of 4500 r over four weeks. While undergoing radiotherapy, she became anuric. Serum creatinine rose to 7.3 mg%. The right kidney was palpable and tender. Right nephrostomy was performed. At surgery, the right ureter was found to be encased by extensive retroperitoneal induration. Following nephrostomy, serum creatinine dropped to normal value within a week. External radiation was resumed and the treatment schedule was completed. Nine weeks later, the 18 Fr. silastic Foley catheter with a 5 ml balloon serving as nephrostomy drainage was changed. Two hours after this procedure, she developed fever, vomiting, and right flank pain. It was noticed that no urine had drained subsequent to change of nephrostomy tube. With the suspicion of a slipped or malpositioned nephrostomy tube, an urgent nephrostogram was performed. This revealed rupture of the ureter at L-4 level with retroperitoneal extravasation of contrast (Fig. 1). The nephrostomy tube balloon was seen occluding the inferior calyx. It was deflated and then repositioned properly. She was prescribed gentamycin 60 mg eight hourly for a week. Fever and flank pain subsided. Nephrostogram performed two weeks later showed no extravasation of contrast at the former site of rupture where lateral deviation of ureter was observed (Fig. 2).

Discussion

This patient with carcinoma cervix developed anuria due to bilateral com-

plete ureteral occlusion. Due to inadvertent malpositioning of the nephrostomy tube, an impediment to the free drainage of urine from the pelvicalyceal system resulted. There was sudden abnormal increase in pressure within the renal pelvis and proximal ureter after which, instead of familiar pyelosinus backflow with urinary extravasation following forniceal rupture (Ginsberg, 1965), a breach in the mid-ureter occurred which was detected during nephrostography performed soon after the onset of symptoms. Following prompt repositioning of the nephrostomy tube, the patient could be managed conservatively and the ureteral rent sealed over a period of two weeks. Familiarity with the urological complications which are encountered often in patients with advanced cancer cervix would help to institute prompt treatment thereby contributing towards decreased morbidity and possibly improved survival rate.

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See Figs. on Art Paper III