Evaluation of renal function in patients with cervical cancer and obstructive uropathy, submitted to percutaneous nephrostomy

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Introduction & Objective: Cervical cancer is the second most frequent cancer among women in Brazil, except in cases of skin cancer melanoma. In Brazil, more than 70% of patients diagnosed with cervical cancer have the disease in an advanced stage. In patients with advanced disease, renal dysfunction caused by obstructive uropathy is a common clinical finding. This find causes a significant increase in morbidity and mortality. A Percutaneous Nephrostomy (PNP) has been used as a solution to be unblocking of patients with cervical cancer who have progressive worsening renal function. This has been associated with promising results in terms of survival, recovery of renal function, pain relief and performance status. Our objective was to evaluate the recovery of renal function (SCr<1.5 mg/dl) in patients with cervical cancer and obstructive uropathy who underwent percutaneous nephrostomy after 30 and 180 days after the procedure and to evaluate which clinical, laboratory or structural (assessed by CT) are associated with the evolution of renal function.

Method: We evaluated 27 patients diagnosed with cancer of the cervix and submitted to PNP, treated as outpatients of Nephrology of the National Cancer Institute. We compared the value of creatinine before PNP with values 30 and 180 days after the procedure to determine whether there was recovery of renal function. We assessed the time in days from obstruction of the ureter, the thickness of the cortex, the pelvis, the kidney diameter (by tomography), the value of urea and creatinine on the PNP as possible predictors of renal function recovery.

Result: Of the 27 patients undergoing PNP, 55.5% recovered renal function. The mean baseline creatinine patients who recovered renal function was 1.2 mg/dl whereas those not retrieved this value was 2.5 mg/dl. The value of creatinine clearance before was 7.2 mg/dl×4.2 mg/dl in patients in which there was no recovery of renal function when compared to those who were recovering. The patient who did not have the amount of creatinine <1.5 mg/dl after 180 days spent longer obstructed when compared to patients with creatinine values <1.5 mg/dl. Patients who have not recovered renal function have a higher bilateral pelvic dilatation, but the thickness of the renal cortex was not able to predict recovery of renal function.

Conclusion: Obstruction of the urinary tract by cancer of the cervix is a common cause of renal dysfunction in Brazilian women. Recovery of renal function can be achieved after clearing. In our study the most important factors that determine the recovery of renal function is creatinine clearance before the duration of the obstruction and the degree of hydronephrosis. The thickness of the renal cortex was not able to predict recovery of renal function.

Biography
Bruno Zawadzki has worked at the National Cancer Institute during 2012 to 2015. He has founded the Nephrology Outpatient Linic, where he performed the follow-up of more than 200 women with cancer of gynecological origin, mainly cervical cancer, associated with obstructive nephropathy.

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