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Research Paper

Role of Percutaneous Nephrostomy in Obstructive Uropathy in Gynecologic Malignancy

Medical Science

KEYWORDS : percutaneous nephrostomy, gynaecological malignancy, obstructive uropathy.

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ABSTRACT

A retrospective study of 25 cases of obstructive uropathy in patients with gynaecological malignancy who underwent percutaneous nephrostomy tube insertion, from June 2010 to April 2012 at Civil Hospital Ahmedabad. Evaluation of patient's age, primary disease, chief complaints, complications, gynaecological malignancy, renal function and benefits of percutaneous nephrostomy was done.

1. Introduction

To assess whether percutaneous nephrostomy placement in obstructive uropathy provide any additional benefit or patient morbidity. To offer symptom relief and avoid complications from renal insufficiency. To determine the further management of uremia. To determine definitive treatment for primary gynecological malignancy that can still be treated with therapeutic modalities like radiotherapy or chemotherapy. To evaluate the complications of percutaneous nephrostomy and improvement in quality of life.

Materials and methods

Patient inclusion criteria

Patient having gynaecological malignancy, presence of obstructive uropathy, associated with high BUN and serum creatinine level, USG finding suggestive of hydroureter and hydronephrosis, patient who underwent unilateral or bilateral PCN insertion.

Detailed history, general examination and systemic examination were done to conform the diagnosis and to rule out any other coexisting abnormality.

Investigations like CBC,RFT,LFT,S.electrolytes, PT, Aptt, USG/CT scan, biopsy, HIV, HBsAg, X-Ray chest and nephrostomogram were done.

Monitoring done with BUN and s.creatinine on day 0,7 and 14. Measurement of daily urine output through PCN tubes and developing complications of PCN noted.

After normalizasion of uremia patient underwent definitive treatment of existing gynaecological malignancy.

2. Observation and Results:-

A total of 25 patients fulfilled the criteria for initial PCN placement for obstructive uropathy in patients with gynecological cancer.

AGE distribution:-

Age	Percentage(%)
>60	12%
50 – 59	36%
40 – 49	32%
30 – 39	20%

Primary diseasewise distribution:-

Primary disease	Percentage(%)
Ca Cervix	80%
Ca Ovary	12%
Ca Vault	8%

Cervical growth was present in 20(80%) patients and 2(8%) patients had vault growth. All of them had parametrial involvement which was the cause for lower ureteric obstruction.

Following PCN insertion there was significant fall in mean pretreatment creatinine level from 10.23 mg/dl to 2.1 mg/dl and BUN level from 79.20 mg/dl to 28 mg/dl (Table:4).

CHIEF COMPLAINT WISE DISTRIBUTION:-

Complaints of patiets	No of patients	Percentage
Bleeding P/V	20	80 %
Abdominal pain	10	40 %
Discharge P/V	9	36 %
Symptoms of uremia	11	44 %
Anuria	9	36 %

13(52%) patients had gross hydronephrosis on ultrasonography and 9(36%) had moderate hydronephrosis and 3(12%) had mild hydronephrosis.

Table: 6complication wise distribution:-

Complications	No of patients
Infection	11
Reinsertion for	10
Percutaneous Leak	6
Perinephric collection	3
Increasing uremia	3
Hematuria	3

3. Discussion

A total of 25 patients fulfilled the criteria for initial PCN placement for obstructive uropathy in patients with gynecological cancer. Mean age was 46.8 years. 20 (80%) patients presented with complaints of bleeding P/V. 11(44%) of patients had symptoms of uremia. 9 (36%) had anuria or oliguria(Table:3) All of them had parametrial involvement and that lead to lower ureteric obstruction and ultimately hydronephrosis and uremia. 23(92%) patients had bilateral ureteral obstruction and 2(8%) patients had unilateral ureteral obstruction. Following PCN insertion there was significant fall in mean pretreatment creatinine level from 10.23 mg/dl to 2.1 mg/dl and BUN level from 79.20 mg/dl to 28 mg/dl (Table:4).

Renal Function	PRE PCN (mg/dl)	POST PCN (DAY 7)(mg/dl)	POST PCN(DAY 14) (mg/dl)
S.Creatinine	10.23	4.93	2.1
BUN	79.20	45.52	28.0

Following PCN insertion after normalization of renal param-

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eters: 15 patients received palliative radiotherapy 2 patients received palliative chemotherapy 3 patients received curative radiotherapy 6 patients had received only symptomatic treatment due to very advanced malignancy.

According to this study 20(80%) of patients had satisfactory quality of life ≥2 months.

Improvement in symptoms of uremia like nausea, vomiting, anorexia and edema (Table:7).

Satisfactory Quality Of Life After PCN		
	No of patients	Percentage
< 2 months	5	20 %
>= 2 months	20	80 %

Conclusion

Percutaneous nephrostomy is an excellent initial procedure for relieving the malignant urinary obstruction with minimal complications. In treated and cured patients with long life expectancy percutaneous nephrostomy was effective to save renal functions. In treating naïve patients percutaneous nephrostomy was effective to improve renal function and allowed definitive treatment in many cases. However majority of patients having advanced neoplasia whose progression is enough to cause ureteral obstruction and refractory to any other therapeutic modality are not good candidates for diversion. Percutaneous nephrostomy can improve uremia, but prognosis and outcome of the primary disease are not influenced and patients are forced to go through all the complications of terminal cancer. Hence PCN is safe and feasible and should be done in carefully selected cases. It should be avoided in cases where it only serves to prolong suffering. Ultimately the wish of patient's need to be respected.

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