



## ORIGINAL RESEARCH PAPER

## General Surgery

### A PROSPECTIVE STUDY ON OUTCOME OF CORRECTIVE SURGICAL PROCEDURE IN OBSTRUCTIVE UROPATHY, ASSOCIATED WITH BENIGN CONDITIONS.

#### KEY WORDS:

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#### ABSTRACT

**Aim-** To study the outcomes of corrective surgical procedures in obstructed poorly functioning kidneys with Split Renal Function  $<30\%$  at midterm follow-up in terms peri-operative complications in these patients. **Method-** Study is to be conducted on patients admitted in Department of Surgery, J.A. Group of Hospitals, Gwalior of 30 patients. **Result-** The Corrective therapeutic procedures in obstructed poorly functioning kidneys secondary to benign conditions have minimal complications and acceptable outcomes. **Conclusion-** On the basis of obtained results from this study we summarize that SRF in poorly functioning renal disease  $<30\%$  was significantly improved and patient also having symptomatic relief.

#### INTRODUCTION-

obstruction due to renal stone, ureteric stone or ureteric stricture, PUJ obstruction may lead to impairment of renal function. The results of reconstructive procedures in poorly functioning kidneys secondary to upper urinary tract obstruction have traditionally been considered poor. Reconstructing such kidneys, especially those with split renal function of  $<30\%$ .

Usually in obstructed poorly functioning kidneys secondary to benign diseases most surgeons perform nephrectomy when split renal function is  $<20\%$  the other renal unit is normally functioning.

The purpose of the study is to see the outcomes of corrective surgical procedures to relieve obstruction in renal units which are poorly functioning renal units (SRF  $<30\%$ ). In this study we plan to preserve obstructed poorly functioning renal units by performing surgical procedures (open/laparoscopic/endourological procedures like pyelolithotomy/ureterolithotomy/PCNL/URS) to relieve obstruction (due to stone in pelvicalyceal system or ureter, ureteropelvic junction obstruction or ureteric stricture) with or without prior urinary diversion through percutaneous nephrostomy or DJ stenting and to study the outcomes at mid-term follow up in terms of:

Improvement of renal function. Improvement in pain and other symptoms. Perioperative complications and assess the factors which may be responsible for no improvement of renal function.

#### Aim

To study the outcomes of corrective surgical procedures in obstructed poorly functioning kidneys with Split Renal Function  $<30\%$  at midterm follow-up in terms of improvement in renal function and patient's symptoms, and the peri-operative complications in these patients.

#### METHOD

A prospective observational study is to be conducted on patients admitted in Department of Surgery, J.A. Group of Hospitals, Gwalior during a period for one and half year after taking well informed and written consent from the patient minimum of 30 patients are taken for the study.

The study focuses on outcomes of renal preserving surgical

interventions in patients with obstructed poorly functioning kidneys secondary to benign causes were found. Seeing the frequency of such patients coming to surgical wards, it is likely that a minimum of 30 patients will be available for the study during the study period.

**Source Of Data:** Patients diagnosed with obstructed poorly functioning kidney secondary to benign causes (stone in renal pelvicalyceal system or ureter, pelvi-ureteric junction obstruction and ureteric stricture attending the outpatient department and getting admitted to surgical/ urology wards. The present study is prospective observational study. A detailed history of all the registered patients was taken. A well informed/written consent was taken from all patients before subjecting them for study. Patients with obstructed poorly functioning kidneys secondary to benign causes was included.

Participant or a family member must be willing to give written and informed consent.

Patients with previous failed upper tract surgery, solitary kidney, congenital renal/ureteric abnormality and chronic kidney disease. Patient of poorly functioning kidney secondary to malignancy. Patients not giving written/informed consent. The patients lost to follow up. Are Excluded From The Study.

#### Preoperative Workup:

Hemogram, renal function test, urine routine and culture, intravenous urography, or non-contrast CT with CT urogram and DTPA Scan, Corrective reconstructive surgeries were performed by open, endourological techniques by experienced urologist. data is to be analysed using SPSS software.

#### RESULT

Our study comprised only adults and the changes in postoperative per cent split renal function were not affected by the age at surgery. The patient's age was not predictive of the potential for improvement in our study. Older age did not preclude the possibility of improvement after pyeloplasty. In our study 42.4% of cases belongs to age group of 15-29 years, 27.2% of cases belongs to 30-44 years of age group, 27.2% cases fall under 45-59 years age group while 3.035 of cases comes under 60 years and above age group with mean age of

34.42 years.

In our study most common (75.75% cases) presenting complaint was abdominal pain and second most common (15.15% cases) complaint was burning micturition and 9.09% cases presented with both symptoms. Postoperatively 9.4% cases had pain in abdomen during follow up periods of less than 4 weeks and 3.1% cases had pain in abdomen during follow up periods of more than 4 weeks. 6.3% of cases had complaints of burning micturition while 84.4% of cases do not have any complaints in follow up period of less than 4 weeks and burning micturition, during follow up period of 4 weeks 93.8% of cases do not have any complaints. our study total no cases of pfk was 33. Mean of <10% SRF was  $7.79 \pm 1.17$  preoperatively and  $3.33 \pm 5.77$  postoperatively. Mean of 10-20% SRF was  $15.27 \pm 3.60$  preoperatively and  $20.66 \pm 11.10$  postoperatively. Mean of 20-30% SRF was  $19.35 \pm 6.72$  preoperatively and  $23.5 \pm 11.05$  postoperatively.

P- Value of change in SRF was 0.012 which was significant. 1 case lost to follow up and 1 case underwent for nephrectomy.

The outcomes of reconstructive procedures in upper urinary tract obstruction are often considered to be poorer in poorly functioning kidney. However objective data is limited in this regard.

Aim of surgery in upper tract obstruction is to achieve non obstructive possible, regain the lost renal function. Corrective therapeutic procedures in obstructed poorly functioning kidneys secondary to benign conditions have minimal This study entitled outcomes of corrective surgical procedure in obstructed poorly functioning renal units secondary to benign causes is a prospective study and is conducted for 2 years from October 2020 to October 2022. The study involved a total no of 33 patient underwent open and endourological procedures. These patients then followed up. preoperative and postoperative SRF and symptoms were compared. On the basis of obtained results from this study we summarize that SRF in poorly functioning renal disease <30% was significant improved and patient also having symptomatic relief. 1 patient was lost to follow up and 1 patient underwent nephrectomy.

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