



## COMPARISON OF EXOCRINE AND ENDOCRINE STATUS- PRE AND POST LPJ: A PROSPECTIVE STUDY.

### KEYWORDS

chronic pancreatitis, LPJ, exocrine status, endocrine status.

Harika

Vikas

**ABSTRACT** **AIM:** To compare the results of exocrine and endocrine functions in patients before and after LPJ.

**MATERIALS AND METHODS:** The study includes patients with chronic pancreatitis (CP) attending to osmania general hospital and undergoing LPJ during the period of 2011-2013.

**RESULTS:** Out of 25 patients, 18 were diabetic and 16 still remained diabetic even after surgery. This shows there is no significant improvement in endocrine function postoperatively. 19 were having steatorrhea pre operatively out of which 5 patients became free of it after surgery showing a significant improvement in exocrine function.

**CONCLUSION:** As the procedure does not alter the ongoing process the long term results may not show much of variation in the parameters of functional status explaining the complex nature of the disease.

### AIM:

To compare the results of exocrine and endocrine functions in patients before and after LPJ.

### METHODS AND MATERIALS:

This is a single institutional prospective study which includes patients with chronic pancreatitis undergoing lateral pancreaticojejunostomy during the period of 2011-2013 in osmania general hospital. The study includes patients with dilated main pancreatic duct and patients of 20-70yrs of age. It excludes patients with associated complications like pseudocysts, abscess, malignancies etc and immunosuppressive disorders like HIV, HCV and HbsAg. It also excludes the assessment of pain and improvement in quality of life.

This study was started with 30 patients and the mean follow up for 6 months after the surgery was done. Pancreatic exocrine and endocrine status of the patients undergoing the Partington-Rochelle modification of lateral pancreaticojejunostomy, measured in terms of insulin requirement for diabetes and presence of steatorrhea is done in this study using a paired t-test.

### RESULTS:

Out of 30 patients in the study, 2 patients died, and 3 patients did not turn up for follow up, therefore these 5 cases are excluded from the study.

Out of 25 patients, 18 were diabetic pre operatively and among them 8 were on oral hypoglycaemic drugs and 10 were insulin dependent. After the surgery 16 were still diabetic, 9 required oral hypoglycaemic drugs and 7 required insulin. This shows that even though there is improvement in the endocrine functions of the pancreas postoperatively, it is not of significant value.

Out of 25 patients, 19 were having steatorrhea pre operatively and among them 5 patients became free of steatorrhea post operatively. This shows a significant improvement in the exocrine function when compared to endocrine function after the surgery.

### DISCUSSION:

Chronic pancreatitis<sup>1</sup> is the persistent inflammation and irreversible fibrosis associated with atrophy of the pancreatic parenchyma. Abdominal pain remains the most debilitating symptom affecting the quality of life, apart from diabetes mellitus, steatorrhea and weight loss.

Risk factors are many such as alcohol abuse, smoking, gene mutations, gall stones etc.

Surgical interventions<sup>2</sup> are broadly grouped into drainage, resection, resection and drainage and modification of these procedures. Pain in CP is assumed to be due to increased pressure in the main pancreatic duct represented by dilated pancreatic duct, this becomes the rationale for decompression surgeries. LPJ is a safe procedure with acceptable mortality below 5%, and the short term pain relief is about 80% especially in patients with dilated MPD. Anastomotic leaks<sup>3</sup> with pancreatic fistulae are uncommon. This is because, in chronic pancreatitis, fibrosis has replaced most of the glandular elements and the parenchyma has a low secretory output. Spontaneous closure within several weeks is known in pancreatic fistulae. Overall improvement in endocrine and exocrine<sup>4</sup> parameters is debatable.

### CONCLUSION:

Lateral pancreaticojejunostomy<sup>2</sup> is a relatively safe procedure with acceptable morbidity. This procedure is mainly indicated for intractable pain showing good results and a definite improvement in quality of life. As the procedure does not alter the ongoing disease process, the long term results may not show much of variation in the parameters of functional status explaining the complex nature of the disease.

Further research is invited in this area with good resources, bigger sample size and longer follow up period.

### REFERENCES:

1. Bradley EL. III. Long term results of pancreatojejunostomy in patients with chronic pancreatitis. *Am J Surg* 1987;153:207-213
2. Mannell A, Adson MA, McIlrath DC, Ilstruo DM. Surgical management of chronic pancreatitis: long-term results in 141 patients. *Br J Surg* 1988; 75:467-472.
3. Morel Ph, Rohner A. Surgery for chronic pancreatitis. *Surgery* 1987;101:130-135
4. Jordan GL, Strug BS, Crowder WE. Current status of pancreato-jejunostomy in the management of chronic pancreatitis. *Am J Surg* 1977, 133:46-51.