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Research Article

**ANALYSIS OF SURGICAL TREATMENT OF GALLSTONES  
IN PATIENTS UNDERGOING GASTRIC BYPASS SURGERY  
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**Abstract:**

**Introduction:** Rapid weight loss after bariatric surgery is one of many known risk factors for gallstone development, along with age, female gender, parity, race, obesity, genetics, very-low-calorie diets, short bowel syndrome, gallbladder motor dysfunction, diabetes, drugs and gastrointestinal surgery, among many others. **Aims and objectives:** The main objective of the study is to analyse the surgical treatment of gallstones in patients undergoing gastric bypass surgery for obesity. **Material and methods:** This cross sectional study was conducted in Rawalpindi Medical University, Rawalpindi during March 2019 to November 2019. The study participants were patients who developed acute pancreatitis and were diagnosed as patients of acute pancreatitis and visited the hospital. Inclusion criteria includes patients admitted to the surgical ward who had been diagnosed with acute pancreatitis. All patients who have any major surgery were excluded from this study. **Results:** The data was collected from 95 patients and we reviewed records from all patients treated for acute biliary pancreatitis. Records were obtained from the hospital database to assess the frequency of acute biliary pancreatitis in silent gall-stones. Acute pancreatitis was diagnosed based on characteristics signs and symptoms, amylase and lipase test or contrast enhanced abdominal computed tomography. **Conclusion:** Prophylactic and selective management can be safely performed and the only significant difference with patients not submitted to concomitant cholecystectomy is mostly observed in operative times that are higher in those who do undergo cholecystectomy.

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**INTRODUCTION:**

Rapid weight loss after bariatric surgery is one of many known risk factors for gallstone development, along with age, female gender, parity, race, obesity, genetics, very-low-calorie diets, short bowel syndrome, gallbladder motor dysfunction, diabetes, drugs and gastrointestinal surgery, among many others. Traditionally cholecystectomy was indicated only in the presence of both gallstones and symptoms, but recently some have advocated elective cholecystectomy in selected cases in the absence of symptoms and even in the absence of gallstones [1].

Gallbladder disease is one of the most common surgical conditions seen in our society. Since it reportedly affects 12 percent of adults, everyone probably knows someone that has had their gallbladder removed. The surgery to treat gallbladder disease by removal of the gallbladder is known as a cholecystectomy [2]. With more than a half million operations performed each year, the cholecystectomy is one of the most common surgeries performed today. Although there are many risk factors which would increase the likelihood of developing gallbladder disease, two of the major causes are obesity and rapid weight-loss; therefore, gallbladder disease is an important issue for a patient with obesity [3].

Gallbladder disease is indicated by the presence of gallstones, which can be detected with an ultrasound. However, the mere presence of gallstones does not normally require surgical treatment, as long as the gallstones are asymptomatic. Two-thirds of all patients who develop gallstones remain asymptomatic and thus do not require surgical treatment [4]. The most common symptom of gallstones is periodic pain that occurs when gallstones block the outlet of the gallbladder. This recurring pain represents the classic "gallbladder attack." The pain is felt just under the breastbone in an area called the epigastrium, commonly referred to as the "pit" of the stomach. The pain will also often move to the back, and can

be accompanied by nausea and occasional vomiting [5].

**Aims and objectives**

The main objective of the study is to analyse the surgical treatment of gallstones in patients undergoing gastric bypass surgery for obesity.

**MATERIAL AND METHODS:**

This cross sectional study was conducted in Rawalpindi Medical University, Rawalpindi during March 2019 to November 2019. The study participants were patients who developed acute pancreatitis and were diagnosed as patients of acute pancreatitis and visited the hospital. Inclusion criteria includes patients admitted to the surgical ward who had been diagnosed with acute pancreatitis. All patients who have any major surgery were excluded from this study.

**Statistical analysis**

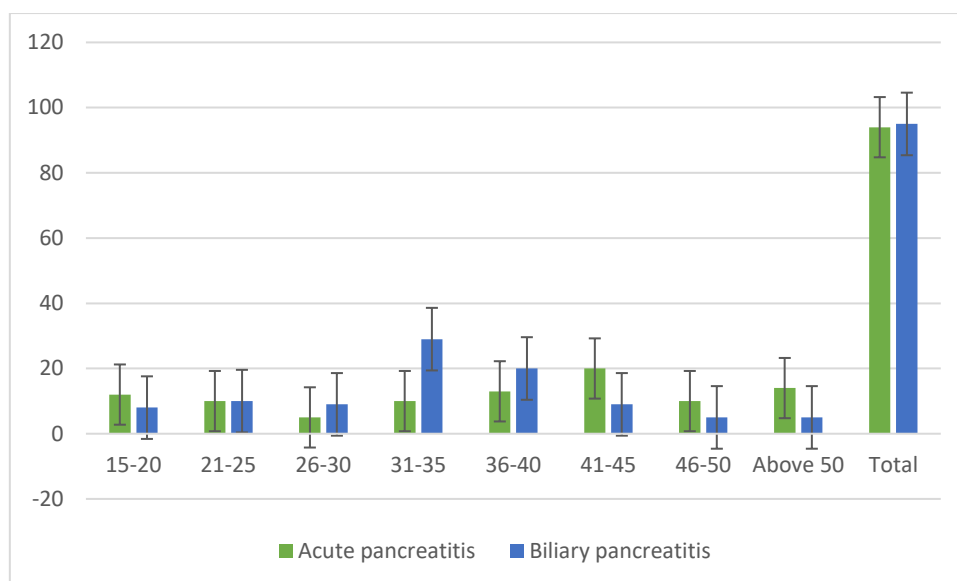
The data was collected and analysed using SPSS version 20.0. All the values were expressed in mean and standard deviation.

**RESULTS:**

The data was collected from 95 patients and we reviewed records from all patients treated for acute biliary pancreatitis. Records were obtained from the hospital database to assess the frequency of acute biliary pancreatitis in silent gall-stones. Acute pancreatitis was diagnosed based on characteristics signs and symptoms, amylase and lipase test or contrast enhanced abdominal computed tomography. The mean age of the patients were 48.5 who were admitted in the general surgery department of the hospital. From total 95 patients, 41(43.1%) male and 54(56.8%) female developed acute biliary pancreatitis based on the detection of gall stones in the biliary tract by abdominal ultrasonography or by endoscopic retrograde cholangiopancreatography (ERCP). As we can see from the results, frequency of acute biliary pancreatitis was higher in females and in elder adults.

**Table 01: Frequency of Acute Pancreatitis and Acute Biliary Pancreatitis in patients**

Age range	Acute pancreatitis	% age	Biliary pancreatitis	%age
15-20	12	12.7	08	8.4
21-25	10	10.6	10	10.5
26-30	5	5.31	09	9.4
31-35	10	10.6	29	30.5
36-40	13	13.82	20	21.3
41-45	20	21.27	09	9.4
46-50	10	10.6	05	5.43
Above 50	14	14.89	05	5.43
Total	94	100	95	100



### DISCUSSION:

Acute biliary pancreatitis can be a life-threatening condition and can be associated with increased morbidity, making early recognition of the condition of paramount importance. Patients develop a steady pain in the mid-epigastrium or right upper quadrant [9]. In some cases, the pain is diffuse or in the left side. It reaches maximum intensity in about twenty minutes and can last for several days, with possible band-like radiation onto the back. Bending forward can give some pain relief. Biliary colic may occur before acute pancreatitis or may proceed it. The associated symptoms are agitation, nausea and vomiting for several hours [10].

Silent gall-stones were found in 35% of our participants suffering from acute pancreatitis when abdominal ultrasound was performed for abdominal pain. Gall-stones represent the most frequent etiology of acute pancreatitis in several global statistics, accounting for around 40-60% of the cases [11].

### Conclusion:

It is concluded that prophylactic and selective management can be safely performed and the only significant difference with patients not submitted to concomitant cholecystectomy is mostly observed in operative times that are higher in those who do undergo cholecystectomy.

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