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Original Article

Neoplastic and Non- Neoplastic Lesions of Gall Bladder- A Histopathological Study

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***ABSTRACT*:**
Background: Lesions of the gall bladder are common among all age groups. It has high mortality rates in terms of lesions such as cholelithiasis followed by cholecystitis. The present study was conducted to assess the histopathology of lesions of gall bladder. **Materials & Methods:** It included 160 specimens who were preserved in 10% neutral buffered formalin, surgically dissected, processed & stainned by Haematoxylin and Eosin and slide were prepared. **Results:** Males were 40 and females were 120. The difference was significant (P-0.01). Neoplastic lesions were 55 and non- neoplastic lesions were 105. The difference was significant (P-0.01). Non-neoplastic lesions were acute cholecystitis (45), chronic cholecystitis (35), cholesterosis (12), choledochal cyst (3) and adenomatoid hyperplasia (10). The difference was significant (P-0.05). Neoplastic lesions were adenocarcinoma (46), signet ring carcinoma (4), mucinous carcinoma (3) and papillary carcinoma (2). The difference was significant (P-0.01). **Conclusion:** Common lesions are acute cholecystitis and chronic cholecystitis etc. The prevalence was more in females. Gall bladder lesions include neoplastic and non-neoplastic.
Key words: Gall bladder, Neoplastic, Non- neoplastic.

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INTRODUCTION

The gallbladder is a organ where bile is stored and concentrated before it is released into the small intestine. It is present below the liver and an important vital organ. It is pear shaped. It receives and stores bile, produced by the liver, via the common hepatic duct, and releases it via the common bile duct into the duodenum, where the bile helps in the digestion of fats. The role of the organ is very important in humans.[1]

Lesions of the gall bladder are common among all age groups. It has high mortality rates in terms of lesions such as cholelithiasis followed by cholecystitis. Carcinoma of gall bladder is another common found lesion. Thus the thorough analysis of the organ via various tests is required to determine its normal functioning in the body.[2]

It is 2.8 to 3.9 inches in length and 1.6 inches in diameter. The lesions may be depending upon its parts such as those of fundus, body and neck. The lesions in the organ can be divided into neoplastic & non- neoplastic. Non-neoplastic lesions includes Artesia, choledocal cyst, etc. and acquired lesions like cholecystitis, cholesterosis etc. Neoplastic lesions can be benign or malignant. Benign lesions include adenomatioid hyperplasia and adenoma. Malignancies of Gall bladder are of either carcinomas or sarcomas. Other includes lymphomas, paraganglioma & other malignancies in gall bladder.[3]

There is need to differentiate it histopathologically into malignant or non- malignant variety. In cases where surgical removal is required, completer removal is done. Nowadays laproscopic cholecystomy is widely used procedure. After surgery, entire specimen is sent for histopathological examination, which is the gold standard method for diagnosis of exact underlying pathological process particularly malignancy.[4] The present study was conducted to assess the histopathology of lesions of gall bladder.

MATERIALS & METHODS

The present study was conducted in the department of general pathology. It included 160 specimens sent to the department. General information such as name, age, gender etc was recorded in the performa. All specimens were preserved in 10% neutral buffered formalin, surgically dissected, processed & staining was done by Haematoxylin and Eosin and slide were prepared. Results were tabulated and subjected to statistical analysis. P value less than 0.05 was considered significant.

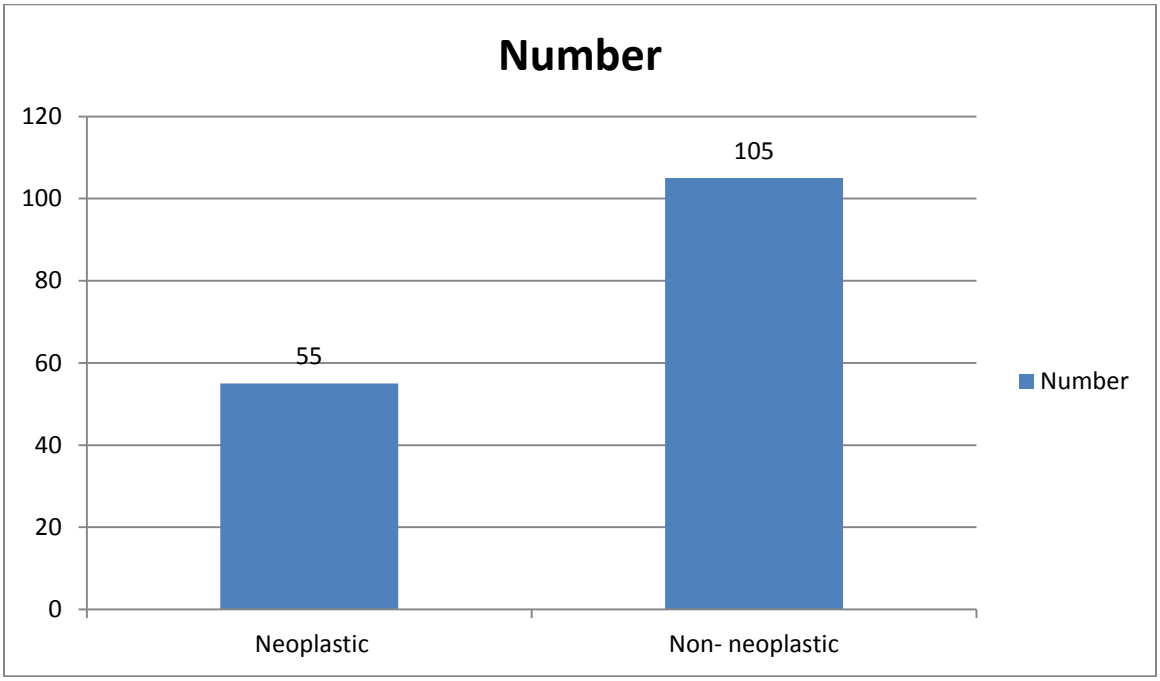
RESULTS

Table I Distribution of patients

Total- 160		
Males	Females	P value
40	120	0.01

Table I shows that males were 40 and females were 120. The difference was significant (P-0.01).

Graph I Nature of lesions



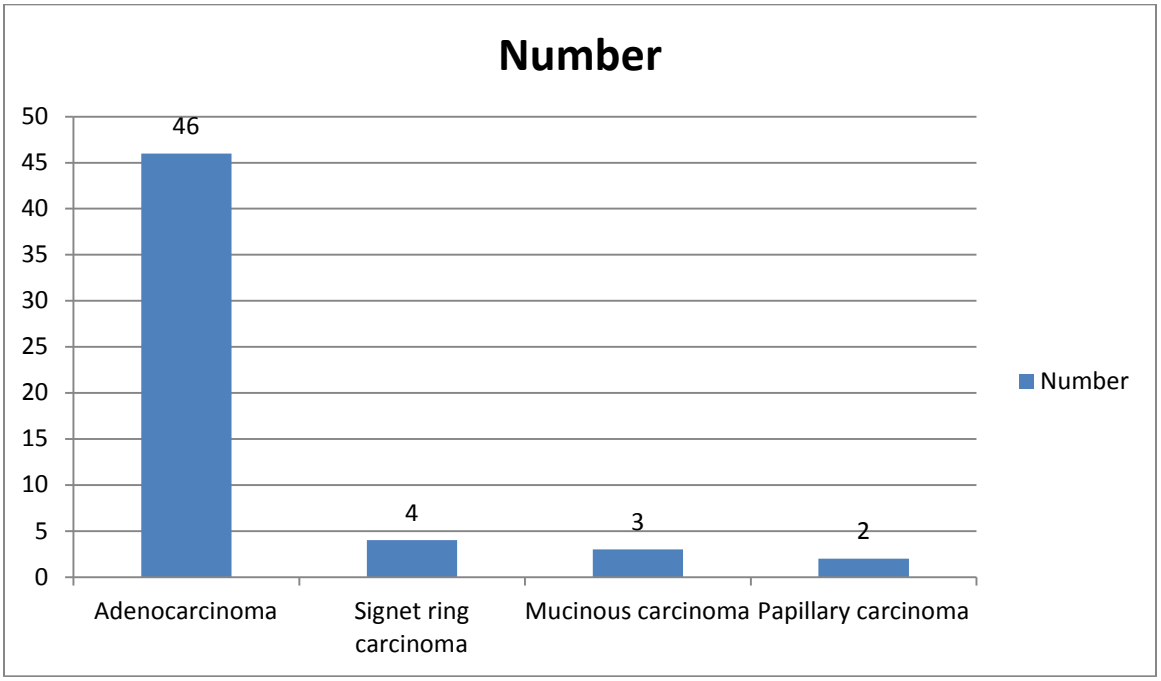
Graph I shows that neoplastic lesions were 55 and non- neoplastic lesions were 105. The difference was significant (P-0.01).

Table II Non- neoplastic lesions of gall bladder

Lesion	Number	P value
Acute cholecystitis	45	0.02
Chronic cholecystitis	35	
Cholesterosis	12	
Choledochal cyst	3	
Adenomatoid hyperplasia	10	
Total	105	

Table II shows that non- neoplastic lesions were acute cholecystitis (45), chronic cholecystitis (35), cholesterosis (12), choledochal cyst (3) and adenomatoid hyperplasia (10). The difference was significant (P-0.05).

Graph II Neoplastic lesions of gall bladder



Graph I shows that neoplastic lesions were adenocarcinoma (46), signet ring carcinoma (4), mucinous carcinoma (3) and papillary carcinoma (2). The difference was significant (P-0.01).

DISCUSSION

Gall bladder carcinoma is the most common cancer of the biliary tree and 5th most common gastrointestinal malignancy. It is characterised by rapid progression and high mortality rate. Cancers at an early stage are limited to the mucosa. Gallstones may develop in the gallbladder as well as elsewhere in the biliary tract. If gallstones in the gallbladder are symptomatic, surgical removal of the gallbladder, known as cholecystectomy may be indicated.[5] The present study was conducted to assess the histopathology of lesions of gall bladder.

In this study, out of 160 lesions, males were 40 and females were 120. Female prevalence was observed in our study. This is in agreement with Jaggnath et al.[6] Cholecystitis is known as inflammation of the gallbladder is due to obstruction of the duct with gallstones, which is known as cholelithiasis. Blocked bile accumulates, and pressure on the gallbladder wall may lead to the release of substances that cause inflammation, such as phospholipase. There is also the risk of bacterial infection. Patient complains of pain and fever, and tenderness in the upper, right corner of the abdomen, and may have a positive Murphy's sign.[7]

We found that neoplastic lesions were 55 and non-neoplastic lesions were 105. This is similar to Bilhartz et al.[8] Neoplastic lesions were adenocarcinoma, signet ring carcinoma, mucinous carcinoma and papillary carcinoma. Signet ring cell carcinoma (SRCC) is a rare form of highly malignant adenocarcinoma that produces mucin. It is an epithelial malignancy characterized by the histologic appearance of signet ring cells. Primary SRCC tumors are most often found in the glandular cells of the stomach and less frequently in the breast, gallbladder, urinary bladder, and pancreas. In present study we reported 4 cases of SRCC.[9]

The lesions of gall bladder are twice more common in women than men, usually in seventh and eighth decades. Other risk factor includes obesity which increases the risk for gallbladder cancer. Chronic Salmonella typhi carriers have 3 to 200 times higher risk of gallbladder cancer than non-carriers and 1–6% lifetime risk of development of cancer. In present study, we recorded 3 cases of mucinous carcinoma and 3 cases of papillary carcinoma. Mucinous carcinoma is other types of carcinomas are rare in occurrence.[10]

We found that non- neoplastic lesions were acute cholecystitis, chronic cholecystitis, cholesterosis, choledochal cyst and adenomatoid hyperplasia. Acute cholecystitis is commonly encounted lesion and seen in most of the cases. More than 90% of the time acute cholecystitis is from blockage of the cystic duct by a gallstone. Risk factors for gallstones include birth control pills, pregnancy, a family history of gallstones, obesity, diabetes, liver disease, or rapid weight loss. Complications of acute cholecystitis include gallstone pancreatitis, common bile duct stones, or inflammation of the common bile duct. Occasionally acute cholecystitis occur as a result

of vasculitis, chemotherapy, or during recovery from major trauma or burns. Choledochal cysts are congenital conditions involving cystic dilatation of bile ducts.[11] It causes abdominal pain and intermittent episodes of jaundice and occasionally cholangitis (inflammation within the bile ducts caused by the spread of bacteria from the intestine into the bile ducts). Pancreatitis also may occur.

CONCLUSION

Gall bladder lesions include neoplastic and non- neoplastic. Common lesions are acute cholecystitis and chronic cholecystitis etc. The prevalence was more in females.

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