

FREQUENCY OF CARCINOMA OF GALL BLADDER IN PATIENTS WITH CHOLELITHIASIS

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ABSTRACT

Background: To determine the frequency of carcinoma of gallbladder in patients with cholelithiasis.

Material & Methods: It was a descriptive study conducted at the Department of Pathology Peoples Medical College Nawabshah, from January 1985 to December 2004. During the above mentioned period 1138 specimens of cholecystectomy for cholelithiasis with cholecystitis were received, out of which 1109 were included in the study being 89.5% females and 10.5% were males. The clinical data, surgical pathology reports and haematoxylin & eosin stained slides were obtained from the record, all the cases were reviewed and results were tabulated.

Results: No case presented with gallbladder mass. The commonest complaint was pain in epigastrium in 70% of cases. Carcinoma was found in 65 cases. The frequency of carcinoma of gallbladder was found in 5.9% of cases.

Conclusion: Present study highlights the importance of careful gross and histopathologic evaluation of gallbladders otherwise removed with the history of chronic or acute cholecystitis. It is further concluded that the frequency of carcinoma of gallbladder is less common in this part of the country.

Key Words: Carcinoma, Cholelithiasis, Histopathology, Gallbladder.

INTRODUCTION

Carcinoma of gallbladder is the fifth most common cancer of digestive tract¹ and the most common malignancy of the biliary tract.² It occurs more often in females^{1,3} and more frequently in the seventh decade.¹ In over 60-95% of patients with gallbladder cancer, there are accompanying gall stones.^{1,3} Stones and chronic inflammation are the risk factors for carcinoma of gallbladder.⁴ The highest incidence of carcinoma of gallbladder is in Chileans, American Indians, and in parts of North India where it accounts for as much as 9.1% of all the biliary tract diseases.⁵ In Asia where pyogenic and parasitic diseases are more common, the gall stones are less important.¹ In Pakistan different studies show 6-28% incidence of carcinoma with cholelithiasis.⁶⁻¹¹ The infectious agents or stones develop cancer as a result of recurrent trauma and chronic inflammation.¹ Carcinoma of gallbladder is usually diagnosed as an incidental histologic finding following cholecystectomy for gall stone disease.³ The strong recommendation for patients with asymptomatic stones is expectant malignancy.⁵ By the time of discovery most of the cancers have invaded the liver directly.¹ The depth of the tumour and lymph node metastasis are important prognostic factors.¹² The haematogenous metastasis are more prominent in well or moderately differentiated tubular adenocarcinoma.¹³ Most of the carcinomas of gallbladder are adenocarcinomas, some are papillary and others are

poorly differentiated to well differentiated infiltrating tumours, 5% are squamous cell carcinomas or have adenosquamous differentiation, a minority are carcinoma tumours.¹

This study was designed to see the frequency of carcinoma of gallbladder in patients with cholelithiasis.

MATERIAL AND METHODS

It was a descriptive study, conducted in Department of Pathology, Peoples Medical College, Nawabshah. All cholecystectomy specimens were included in the study, operated for cholelithiasis with cholecystitis, received in the Department of Pathology, Peoples Medical College Nawabshah, during January 1985 to December 2004. During this period 1138 cholecystectomy specimens were received from various surgical units of Peoples Medical College and Hospital, Nawabshah. Out of these 11 specimens were received autolysed and were not included in the study and 18 other cases were also not included in the study because of improper clinical data. Out of remaining 1109 cases which were included in the study 993 (89.5%) were females and 116 (10.5%) males. The mean age of females was 48 years and of the males 56 years. The clinical data, surgical pathology reports and haematoxylin & eosin stained slides were obtained from the record, all the cases were reviewed and results tabulated.

RESULTS

Out of 1109 cases, 754 (70%) patients were complaining of pain in the epigastrium, followed by the complaint of dyspepsia in 654 (59 %) cases. Gallbladder was palpable in 399 (36%) cases, nausea / vomiting in 354 (32%) cases, fever in 288 (26%) cases, pain in the right upper quadrant 255 (23%), clinical jaundice in 210 (19%), weight loss in 22 (2%) cases. There was no patient observed with gallbladder mass. The Murphy sign was positive in 909 (82%) cases. (Table-1)

On ultrasound examination all of the 1109 cases showed gallstones with thickened wall in 122 (11%) cases and dilated common bile duct in 145 (13%) of cases.

The histopathological results of all these cases showed; acute cholecystitis in 98 (8.8%), chronic cholecystitis in 946 (85.3%) and carcinoma in 65 (5.9%) of cases. Among the 65 cases of carcinoma 53 (81.5%) were females and 12 (18.5%) males.

DISCUSSION

Preoperative diagnosis of carcinoma of gallbladder is an exception rather than the rule.¹ The carcinoma of gallbladder is usually diagnosed incidentally following surgery for gall stone disease.³ It is the commonest malignancy of the biliary tract.² Most of the patients are asymptomatic⁵ and patients suffering from advanced disease have symptoms.⁶ The symptoms of abdominal pain, jaundice, anorexia, and weight loss are only seen in advanced inoperable

Table 1: Frequency of symptoms and signs in 1109 patients at presentation

S. No	Symptoms & Signs	Number of Patients	Percentage
1.	Positive Murphy sign	909	82 %
2.	Pain in epigastrium	754	68 %
3.	Dyspepsia	654	59 %
4.	Palpable gallbladder	399	36 %
5.	Nausea & vomiting	354	32 %
6.	Fever	288	26 %
7.	Pain in right upper quadrant	255	23 %
8.	Jaundice	210	19 %
9.	Weight loss	22	02 %
10.	Gallbladder mass	0	00 %

Table 2: Frequency Of Carcinoma Of Gallbladder In Patients With Cholelithiasis Pakistan

S. No	Study	Duration	Hospital	Number of Patients	Incidence
1.	Naqvi et al	1985-2004	Peoples Medical College & Hospital, Nawabshah	1109	5.9 %
2.	Moosa A et al	1999-2001	Civil Hospital, Karachi	148	7%
3.	Shaikh et al	1997-1998	Chandka Medical College & Hospital, Larkana	100	10%
4.	Gondal et al	1997-1998	King Edward Medical College, Lahore	236	11%
5.	Ahmed G et al	1995-1997	Bahawal Victoria Hospital, Bahawalpur	50	28%
6.	Ahmed I et al	1992-1993	Allied Hospital (PMC) Faisalabad	100	20%
7.	Ahad A & Choudry NU	1988-1989	Shaikh Zayed Hospital, Lahore	504	6%

cases. In the early stages there is non-specific clinical presentation and is an incidental finding following cholecystectomy for gallbladder disease.³

The frequency of carcinoma of gallbladder in our study is 5.9%, which is more common as compared to studies in United States and other parts of the world,^{14,15} but in comparison to other studies in Pakistan the incidence of carcinoma of gallbladder is less common in this part of the country. (Table-2)

It has been found that there is a large difference of 5.9 to 28% in the incidence of carcinoma of gallbladder in patients with cholelithiasis in Pakistan. These large differences in the incidence may be due to differences in the sample size, so further studies with large sample size like the current one are required to see the frequency of carcinoma of gallbladder in patients with cholelithiasis in Pakistan.

CONCLUSION

Carcinoma of gallbladder is asymptomatic in the early stages. Present study highlights the importance of careful gross and histopathologic evaluation of gallbladders removed with the history of chronic or acute cholecystitis.

The frequency of carcinoma of gallbladder is less common in this part of the country.

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