

## A Study of Carcinoma Gall Bladder Diagnosed After Cholecystectomy Carried Out for a Benign Disease

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### ABSTRACT

Carcinoma gall bladder is a relatively uncommon malignancy in Pakistan. Its prognosis is poor with less than 5% of 5 year survival rate. This was an observational, prospective and non interventional study with a sample of 126 patients presenting with benign biliary disease. Out of these 126 cases, 64 were males and 62 patients were females. And 14 out of these were diagnosed of gall bladder malignancy. All the 126 cases were provisionally diagnosed as the cases of cholecystitis with cholelithiasis. The most common presenting complaints were abdominal pain (10 cases) followed by jaundice (4 cases), fever (3 cases) and weight loss (3 cases). Transaminases were raised in 5 cases and hyperbilirubineamia was present in 6 cases. Therefore possibility of presence of gall bladder carcinoma in the evaluation of benign biliary disease must be considered for a better prognosis.

**Key words:** CA gallbladder, cholecystectomy, benign disease

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### INTRODUCTION

Carcinoma gall bladder is a relatively uncommon malignancy in Pakistan. Its prognosis is poor with less than 5 % of 5 year survival rate<sup>2,3,4,5</sup>. It was difficult to diagnose the case of Carcinoma gall bladder at early stage because of lack of specific sign and symptoms. However its easier now to diagnose a case of gall bladder carcinoma due to advancements in imaging techniques but the diagnostic value of preoperative ultrasound (US), computed tomography (CT) and cholangiography is still limited<sup>5,6,7,8</sup>.

Certain studies and research papers suggest that 10-40% of gall bladder cancers were detected incidentally after cholecystectomy<sup>5,6,7,9</sup>. Gall bladder carcinoma is also reported in cholecystectomy done for presumably benign biliary disease. The objective of this study is to suggest the outcome of cholecystectomy carried out for benign disease

### MATERIALS AND METHODS

This was an observational, prospective and non interventional study with a sample of 126 patients presenting with benign biliary disease. Out of these 126 cases, 64 were males and 62 patients were females. And 14 out of these were diagnosed of gall bladder malignancy. Remaining 112 cases were suffering from benign biliary diseases. All these patients suffering from benign biliary problems are excluded from our study and only malignant ones are included, The cases came to Nawaz Sharif Social

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Security Hospital during a year's time of study from 28-9-2009 to 30-11-2010. The cases were personally interviewed using a structured questionnaire and data related to histopathology was taken from pathology laboratory records. All these patients were clinically examined followed by Ultrasonography abdomen. The staging of the tumors done according to Nevin's classification as follows: stage I, intra mucosal involvement only; stage II, involvement of mucosa and muscularis; stage III, transmural involvement; stage IV, transmural and cystic lymph node involvement; stage V contiguous or metastatic liver involvement or distant metastases<sup>1</sup>.

### RESULTS

All the 126 cases were provisionally diagnosed as the cases of cholecystitis with cholelithiasis. The most common presenting complaints were abdominal pain (10 cases) followed by jaundice (4 cases), fever (3 cases) and weight loss (3 cases). Transaminases were raised in 5 cases and hyperbilirubineamia was present in 6 cases.

On abdominal ultrasonography, solitary or multiple stones were seen. We did Cholecystectomies in all the patients and sent the gall bladders for histopathology. Carcinoma gall bladder was found incidentally after cholecystectomy in 14 cases. On histopathology, in 5 patients the cancer was involving only the fundus of gall bladder followed by the body of gall bladder involved in 4 patients. In 3 patients the entire gall bladder was involved and in remaining 2 patients the neck of gall bladder was involved. Out of 14 cases, 12 were diagnosed of Adenocarcinoma and 2 were of Squamous cell carcinoma. Another

interesting fact that was noticed was that females affected were slightly more than males.

These 14 cases comprised of 8 females and 6 males. Carcinoma was confined to the mucosa of gall bladder in 4 patients (stage I) involving the muscularis in 4 (stage II) and involved the entire

thickness of gall bladder in 3 (stage III). Liver and lymph node metastasis was seen in 3 patients according to Nevin's classification. Most of the patients with advanced stage died within 6 months postoperatively.

Case	Age	Sex	Preoperative Diagnosis	Location	Microscopic Findings
1	63	Female	Cholecystitis	Fundus	Adenocarcinoma
2	71	Female	Cholecystitis	Body	Adenocarcinoma
3	52	Male	Cholecystitis	Neck	Adenocarcinoma
4	61	Female	Cholecystitis	Fundus	Adenocarcinoma
5	55	Female	Cholecystitis	Body	Adenocarcinoma
6	78	Male	Cholecystitis	Fundus	Adenocarcinoma
7	62	Male	Cholecystitis	Entire	Adenocarcinoma
8	67	Female	Cholecystitis	Body	Adenocarcinoma
9	74	Female	Cholecystitis	Fundus	Squamous Cell Carcinoma
10	75	Male	Cholecystitis	Entire	Adenocarcinoma
11	75	Female	Cholecystitis	Neck	Squamous Cell Carcinoma
12	59	Male	Cholecystitis	Body	Adenocarcinoma
13	63	Female	Cholecystitis	Fundus	Adenocarcinoma
14	70	Male	Cholecystitis	Entire	Adenocarcinoma

## DISCUSSION

In the present study we found out that out of 112 suspected cases of cholecystitis, 14 were diagnosed as malignant lesions. This figure makes a percentage of 12.5. If we further elaborate this figure, out of 14 cases 12 were diagnosed of Adenocarcinoma and 2 were of Squamous cell carcinoma. Another interesting fact that was noticed was that females affected were slightly more than males.

As far as early diagnosis of gall bladder cancer is concerned, it is difficult because of its non specific signs and symptoms. The clinical features of gall bladder carcinoma are often identical to those of cholecystitis and cholelithiasis and occur insidiously with advancing of the stage<sup>4,11</sup>.

The pre operative diagnosis was different because of infiltrative pattern. It must be kept in mind that dysplasia or carcinoma in situ cannot be differentiated from chronic cholecystitis on gross appearance and not to mention the similarities in the symptoms of both the cases.

Good prognosis is possible on early diagnosis of these cases especially when these tumours are early carcinomas. The incidence of gall bladder carcinomas are very evident as is clear from this study. Our study shows that the incidence of unsuspected gall bladder carcinoma is not rare and a considerable number of unsuspected cases might be at an early stage of carcinoma. Therefore possibility of presence of gall bladder carcinoma in the evaluation of benign biliary disease must be considered for a better prognosis.

## REFERENCES

1. Nevin JE, Moran TJ, Kay S, King R. Carcinoma of Gall Bladder: Staging, treatment and prognosis. *Cancer* 1976; 37: 141- 8
2. Frank SA, Spjut HJ. Inapperant carcinoma of Gall Bladder. *Am Surg* 1967; 33: 367-72
3. Arnaud J, Graf P, Gramfort J, Adloff M. Primary Carcinoma of Gall Bladder. *Am J Surg* 1979; 138: 403-6
4. Oertli D, Herzog U, Tondeli P. Primary Carcinoma of Gall Bladder: Operative experience during a sixteen year period. *Eur J Surg* 1993; 159: 415-20
5. Henson DE, Albores-Saavedra J, Corle D. Carcinoma Gall Bladder. *Cancer* 1992; 70: 1493-7
6. Park YK, Kim SW, Park YH. Ac clinical study of Gall Bladder Carcinoma. *Korean J Gastroenterol* 1989; 21: 113-22
7. Japanese society of Biliary Surgery. General Rules of Surgical and pathological on Cancer of Biliary Tract, 3<sup>rd</sup> ed. Tokyo. Kanehara Company, 1993.
8. Yum HY, Fink AH. Sonographic findings in Primary Carcinoma of Gall Bladder. *Radiology* 1980; 134: 693-6.
9. Yamguchi K, Masazumi T. Subclinical Gall Bladder Carcinoma. *Am J Surg* 1992; 163: 382-6
10. Kijima H, Ishihara N, Iwafuchi M, Watanabe H. Characteristic of Early Carcinoma of Gall Bladder-Clinico-Pathological Study. *Gan No rinsho- Jpn J Cancer Clin* 1986; 32: 1240-5.
11. Hamrick RE, Liner FJ, Hastings PR, Cohn I. Primary carcinoma of gall bladder. *Annals of surgery* 1982; 195: 270-3
12. Kimura W, Nagai H, Kuroda A, Morioka Y. Clinicopathological study of asymptomatic gall bladder carcinoma found at autopsy.

13. Hisatomi K, Haratake J, Horie A, Ohsato K. Relation of histopathological features to prognosis of gall bladder cancer. *American journal of gastroenterology* 1990; 85 : 567-72
14. Maringhini A, Moreau JA, Melton J, Hench VS, Zinsmeister AR, DiMagno EP. Gall stones, gall bladder cancer and other gastrointestinal malignancies. *Annals of internal medicine* 1987; 107: 30-5
15. Mizumoto R, Ogura Y, Kusuda T. Definition and diagnosis of early cancer of the biliary tract. *Hepatogastroenterology* 1993; 40: 69-77
16. Thorson MK, Quiroz F, Lawson TL, Smith DF, Foley WD, Stewart ET. Primary biliary carcinoma : CT evaluation. *Radiology* 1984; 152: 479-83
17. Dancygier H, Nattermann C. The role of endoscopic ultrasound in biliary tract disease: obstructive jaundice. *Endoscopy* 1994 ; 26: 800-2
18. Wade TP, Comitalo JP, Andrus CH, Goodwin MN, Kaminski DL. Laparoscopic cancer surgery. Lessons from gall bladder cancer. *Surgical endoscopy* 1994;8 : 698-701