

## PATIENTS WITH GALL BLADDER CANCER: A CLINICAL EXPERIENCE

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### ABSTRACT

**Objective:** To see the clinical profile of patients with gallbladder cancer.

**Methodology:** In this multicentre retrospective study records of all patients with gallbladder cancer, who presented at Patel Hospital, Karachi Adventist Hospital and Bilquis Naz Hospital Karachi, during January 2002 to December 2005, were reviewed.

**Result:** Out of sixty-six, forty-nine were females (74.2%) and seventeen were males (25.8%), showing female preponderance. Forty-two (63%) patients were in age group of 51-70 years. Fifty two patients (78%) presented with advanced disease. Main symptom noted was pain associated with anorexia, nausea & vomiting. Major signs were palpable mass, hepatomegaly and jaundice. Adenocarcinoma was reported in sixty-four (97%) cases.

**Conclusions:** Prevalence of gall bladder cancer is higher in females in our series. Most of them were in fifth and sixth decade of life. Gallbladder cancer showed association with gallstones and fifty-two patients (78%) presented with unresectable advanced malignancy.

**KEY WORDS:** Gallbladder cancer, Cholelithiasis.

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### INTRODUCTION

Carcinoma of the gallbladder (GBC) is the most frequent malignant tumor of the biliary tract and the fifth most common cancer of the digestive tract.<sup>1</sup> In the United States and European countries carcinoma of the gallbladder is an uncommon tumor accounting for less than 2% of all cancer reported annually. There are 6000 to 7000 new cases of GBC reported

annually in the United States.<sup>2</sup> However, in certain parts of the world; it is a very common disorder. It is relatively common in some ethnic groups like in American Indians and Hispanics.<sup>2</sup> The reasons for these geographical or ethnic variations for biliary tract cancer are not clear, but some unknown environmental risk factors or a genetic susceptibility are suspected.<sup>3</sup> In a study GBC was found in 0.1-1% of autopsies.<sup>4</sup>

The frequency of the gallbladder tumor is higher in Pakistan as compared to other countries like Iran, Turkey and Bangladesh.<sup>5</sup> Similarly, it is the most lethal cancer observed in Chilean women.<sup>6</sup> Similar incidence has been reported from Bolivia and Mexico. In Thailand, cancer of the biliary tract is the commonest cancer observed.<sup>7</sup>

The high prevalence of gallbladder tumor in female is also notable and it has been reported as the second commonest malignancy of gastrointestinal origin in Pakistani females. Most of the patients reported are women over 50

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years of age and with concomitant gall stone.<sup>8</sup> Besides gall stones, some other factors such as pregnancy, female sex hormones, low fiber and Vitamin A intake, and high fat intake have been suspected of being associated with gallbladder cancer directly or indirectly.<sup>9</sup>

In a study by Mohammad Zarin the malignancy was associated with gallstones in 92% of cases and cholelithiasis played a significant role.<sup>10</sup> Despite this observation there is still debate about the true relationship between the two conditions.<sup>11</sup>

There seems to be higher risk of carcinoma in a gallbladder with a calcified wall: i.e.; porcelain gallbladder. There may be an association between chronic typhoid infections and subsequent development of gallbladder cancer, and the likelihood of such a progression is six times higher than in normal subjects.<sup>12</sup> Tanaka K et al reported that gallbladder cancer is associated with an anomalous high union of pancreatic and common bile ducts.<sup>13</sup>

The commonest histological type is adenocarcinoma. This may be glandular, medullary, scirrhous, papillary or colloid. It appears that papillary form may have a better prognosis than the nodular infiltrate form. Occasionally, undifferentiated carcinoma, squamous cell carcinoma, carcinoma in situ and a mixed group of rarities are reported. Very rarely malignancy may develop from non-papillary adenomas, especially large ones over one cm in diameter.<sup>14</sup> The objective of this study was to see the clinical profile of patients with Gallbladder cancer.

#### PATIENTS AND METHOD

During January 2002 to December 2005, clinical profile of sixty six patients with gallbladder cancer who were seen at Patel Hospital Gulshan-e-Iqbal, Karachi. Adventist Hospital located in the center of the city and Bilquis Naz Hospital in Federal B Area Karachi; were studied. CT Scan was mandatory for each patient. Forty-nine patients (74.2%) were females and seventeen (25.8%) were males. Majority of the patients, 42 females and 14 males were in 41-70 years of age. Age and sex distribution of these patients is given in (Table-I).

Table-I: Age and Sex distribution of patients with Gallbladder cancer (n = 66)

Age	M	F	Total (%)
< 40	1	5	6 (9.09)
41-50	4	10	14 (21.21)
51-60	3	20	23 (34.85)
61-70	7	12	19 (28.79)
> 71	2	2	4 (6.06)
Total (%)	17 (25.75)	49 (74.24)	66 (100)

#### RESULTS

Major presenting symptoms were nausea, vomiting in 71.21% of patients while anorexia was seen in 50% and 43% of patients presented with Jaundice. Weight loss, abdominal distention and pruritus were also significant symptoms in many patients. Major signs were palpable mass and hepatomegaly in 50% of the patients. Emaciation and cachexia was noted in 38%, Ascities and peripheral edema was seen in 17% of the patients. Major complications of the disease noted were obstructed jaundice in 52%, cholangitis in 28% and encephalopathy in 11% of the patients. Radiological findings revealed gallstones in 75% of patients and mass in 29% of patients, whereas 27% showed metastasis and dilated CBD.

Out of sixty-six patients surgery was done in 40 (60.60%) patients. Surgical findings seen in these forty patients are given in (Table-II).

Histopathology revealed adenocarcinoma in 97% of cases while the remaining 3% of patients were of squamous cell carcinoma. Only palliative therapy was given in 60% of patients, while 20% received chemotherapy. Hormonal therapy or radiation was offered to less than five percent of the patients.

#### DISCUSSION

Carcinoma of the gall bladder is an aggressive disease and ranks as the most frequent malignancy of the biliary tract. Patients commonly do not have any symptoms or have uncharacteristic symptoms even in advanced stage of the disease. Therefore establishing a proper diagnosis becomes difficult.<sup>15</sup> In spite of advances in techniques for early detection and surgical management of other cancer, prognosis of patients with primary malignant tumor of the gallbladder, has not improved and

Table-II: Surgical Findings (n = 40)

	Number of patients (%)
Cystic nodes involvement	25 (62.50)
Liver metastasis	22 (55.00)
Extension to CBD	18 (45.00)
Ascities	13 (32.50)
Local extension to Liver	12 (30.00)
Extension to Duodenum	11 (27.50)
Omental metastasis	11 (27.50)
Confined to Gall Bladder	8 (20.00)

carries a poor prognosis.<sup>16</sup> Various studies have shown that gallbladder cancer in female is more common as compared with males.<sup>17</sup> These facts have been found to correlate with our study. This pattern of gallbladder cancer may be due to multiple pregnancies, cholelithiasis and repeated infections.<sup>18</sup> Our observation about cholelithiasis is same as reported in various studies that the tumor is associated with gallstones in more than 70% of cases.<sup>19</sup> In this study gallstones were present in 75% of the cases. In our experience, biopsy revealed 97% of patients with histopathological findings of adenocarcinoma, which is the commonest histological type and correlate with data in literature.<sup>20</sup> Treatment of gallbladder cancer is dependant on the stage of the disease.

Only simple cholecystectomy is an inadequate treatment for advanced stage disease, whereas wide excision is the therapeutic modality of choice. Most often, when disease is too advanced, only palliative procedures are done.<sup>21</sup> This is consistent with our findings.

## CONCLUSION

This hospital based study shows a threefold higher incidence of gallbladder cancer in females and association of malignancy with gallstones, which might reveal inflammatory and infective etiology. Therefore early cholecystectomy for cholelithiasis is the best way to prevent gallbladder cancer.

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