



CLINICAL PROFILE OF GALL BLADDER CARCINOMA

Dr Harish Chand Choudhary*

Senior Resident, Department of General Surgery, Dr. Sampurnanand Medical College, Jodhpur (Rajasthan). *Corresponding Author

Dr. Mohammed Irfan

M S General Surgery

ABSTRACT **BACKGROUND-** Gallbladder cancer (GBC) is one of the most common and aggressive malignant neoplasms of the biliary system, accounting for 3% of all tumors. **METHODS-** Hospital based, observational type of study was conducted in the Upgraded Department of General Surgery, Gastro Surgery Department, Gastroenterology Department of SMS Medical College, and Jaipur. **RESULTS-** In our study maximum numbers of patients were poorly differentiated Adenocarcinoma 45% and 40% were moderately differentiated Adenocarcinoma. Maximum numbers of patients fall in to stage IV 67.5 %. There were only 17.5 % patients presented with early stage disease. 47.5% patients had Lymph node metastasis. **CONCLUSION-** Gallbladder is a rare identity with silent progression thus present in advanced stage carrying high rate of mortality and morbidity. It is more common in female than in male. Presence of gallstone has higher risk of malignancy.

KEYWORDS : Clinical Profile, Gallbladder Cancer (GBC), Malignant.

INTRODUCTION

Gallbladder cancer (GBC) is one of the most common and aggressive malignant neoplasms of the biliary system, accounting for 3% of all tumors. The rate of gall bladder diseases are more common among females than males. Gall bladder disease are more common in the Northern and Northeastern states of Uttar Pradesh, Bihar, Orissa, West Bengal and Assam.¹ Risk factors for gall bladder disease include diet, obesity, multiparity and chronic infections including Salmonella typhi and paratyphi and Helicobacter pylori.² Gall stones (cholelithiasis) has increasingly become a major cause of abdominal pain and discomfort in the developing world. The prevalence of gall stones is has increased in the recent years. The types of gall stones include - Mixed stones, combined stones, Pigment stones and, Cholesterol stones. Gallbladder cancer (GBC) is the most common malignancy of the biliary tract, accounting for 80%–95% of biliary tract cancers. Gall bladder cancer is more common among north Indian cities and two times higher in women.³

The incidence of gall bladder carcinoma has great geographic and ethnic variation.¹ In India, gall bladder cancer is rare (1%). Majority of the incidence of gall bladder cancer are from northern (The Gangetic belt) and central parts of the country.²

Screening of pre-malignant lesions of gall bladder is mandatory for early detection of disease and presence of suspicious lesion. An appropriate early measure is important for curative treatment and long-term survival of patients. Screening examinations are necessary to reduce mortality and morbidity among high-risk patients.

MATERIAL AND METHODS

- **Study Design:** Hospital based observational type of study.
- **Study Area:** Proposed study was conducted in the Upgraded Department of General Surgery, Gastro Surgery Department, Gastroenterology Department of SMS Medical College, and Jaipur.
- **Study Period:** Study was conducted from approval of ethics committee till sample size achieved. [May, 2017 – Dec, 2018]
- **Sample Size:** 40 eligible malignant cases would be included in study on first come first basis.

INCLUSION CRITERIA

- Patient admitted in SMS Hospital
- Histologically diagnosed patient with Gall bladder carcinoma who had given written informed consent for study

EXCLUSION CRITERIA

- Who have history of any other cancer
- Patients with Tuberculosis, retroviral diseases and hepatitis.
- Patient with Diabetes, Hypertension
- Subjects who are not willing for study
- Age below 14 years

Statistical analysis

Statistical analysis was performed with the SPSS, version 21 for Windows statistical software package (SPSS inc., Chicago, IL, USA). The Categorical data was presented as numbers (percent) and were compared among groups using Chi square test. The quantitative data was presented as mean and standard deviation and were compared by student's t-test. Probability was considered to be significant if less than 0.05.

For significance cut off values are as follows →

P > 0.05 = not significant

P < 0.05 = significant

OBSERVATIONS AND RESULTS

Table No. 1. Age Incidence of Gall Bladder cancer

| Age Group | No. of GB Patients | Percentage % |
|-----------|--------------------|--------------|
| <40 | 7 | 17.5 |
| 41-50 | 6 | 15.0 |
| 51-60 | 10 | 25.0 |
| 61-70 | 14 | 35.0 |
| >70 | 3 | 7.5 |
| Total | 40 | 100.00 |

Table 1 shows- Incidence of gall bladder cancer in > 50 years of age is 67.5%. Gall bladder cancer is mainly a disease of older age group. Incidence below 50 years age is only 32.5%.

Table No. 2. Distribution of GBC according to Gender

| Gender | No. of GB Patients | Percentage |
|--------|--------------------|------------|
| Male | 16 | 40.00 |
| Female | 24 | 60.00 |
| Total | 40 | 100.00 |

Table 2 shows 60% cases were female. Carcinoma gall bladder is mainly a disease of female in our study.

Table No. 3. Presenting Symptoms in Gall Bladder cancer

| Symptoms | No. of Cases (N=40) |
|-----------------|---------------------|
| Pain | 28 |
| Nausea/Vomiting | 13 |
| Lump/Swelling | 31 |
| Fever | 8 |
| Jaundice | 12 |
| Ascites | 3 |

- Lump in right upper abdomen is most common (77.5%) presenting symptom in gall bladder cancer.
- Pain in right upper abdomen is found in 70% patients.
- Jaundice is presenting symptom in in 30% patients.

Table No. 4. Dietary association of GBC

| | No. of GB Patients | Percentage |
|-----|--------------------|------------|
| Veg | 29 | 72.5 |

| | | |
|---------|----|--------|
| Non-Veg | 11 | 27.5 |
| Total | 40 | 100.00 |

Gall bladder cancer mainly seen in Vegetarian. In our study 72.5% patients of GBC were Vegetarian.

Table No.5.Relation of Gall stone with GBC

| | No. of GBC Patients | Percentage |
|----------|---------------------|------------|
| Stone | 14 | 35.00 |
| No Stone | 26 | 65.00 |
| Total | 40 | |

35% patients of GBC had Gall Stone.

Table No.6. Histopathological presentation of GBC

| Variable | No. of GBC Patients | Percentage | |
|---------------------------|--------------------------------|------------|-------|
| Tumor size (cm) | <5 | 19 | 47.50 |
| | >5 | 21 | 52.50 |
| Degree of differentiation | Well Dif. Adenocarcinoma (1) | 6 | 15.00 |
| | Mod. Dif. Adenocarcinoma (2) | 16 | 40.00 |
| | Poorly Dif. Adenocarcinoma (3) | 18 | 45.00 |
| Tumor stages | Stage 1 | 3 | 7.50 |
| | Stage 2 | 4 | 10.00 |
| | Stage 3 | 6 | 15.00 |
| | Stage 4 | 27 | 67.50 |
| Lymph Node Status | Yes | 19 | 47.50 |
| | No | 21 | 52.50 |

In our study maximum numbers of patients were poorly differentiated Adenocarcinoma 45% and 40% were moderately differentiated Adenocarcinoma. Maximum numbers of patients fall in to stage IV 67.5 %. There were only 17.5 % patients presented with early stage disease. 47.5% patients had Lymph node metastasis.

DISCUSSION

In our female were common than male also reported by Schirmer et al (2005). The results of the present study exhibit female preponderance thus holding true the saying that 'a fatty, fertile, flatulent, female of forty is the classical sufferer from symptomatic gallstones.

In the present study, the most commonly involved age group for cholelithiasis was found to be 61-70 years while Pradhan et al⁶ reported maximum 32.5% cases belongs to age group 30-39 years with M:F of 1:3.2, similar observations were reported by Idris et al⁷ and Aslam t al⁸, who observed majority of cases from age group 31-50 years.

Lump in right upper abdomen is most common (77.5%) presenting symptom in gall bladder cancer in present study. Similar observations were reported by Pradhan et al⁶, in their study they observed maximum 75% cases presented with pain Right Hypochondrium followed by epigastric pain (57.5%).

Non-vegetarians were found to be commonly involved with cholelithiasis than vegetarians. The ratio of incidence of cholelithiasis in non-vegetarian – vegetarian was found to be the exact cause can not be stated however it could be due to the consumption of high protein and fat.

In our study maximum numbers of patients were poorly differentiated Adenocarcinoma 45% and 40% were moderately differentiated Adenocarcinoma. Maximum numbers of patients fall in to stage IV 67.5 %. There were only 17.5 % patients presented with early stage disease. 47.5% patients had Lymph node metastasis.

Watanabe⁹ study reported adenocarcinoma (88%) as the most common histology, followed by adenosquamous (4%), squamous (4%), small cell (3%), and neuroendocrine (1%).

In a study published by Mishra S etal (2003)¹⁰ 16%, 18%, 38% , 28 % were diagnosed with stages I, II, III and IV disease

CONCLUSION

Gallbladder is a rare identity with silent progression thus present in advanced stage carrying high rate of mortality and morbidity. It is more common in female than in male. Presence of gallstone has higher risk of malignancy.

REFERENCES

- Unisa S, Jagannath P, Dhir V, Khandelwal C, Sarangi L, Roy TK. Population based study to estimate prevalence and determine risk factors of gallbladder diseases in the rural Gangetic basin of North India. HPB. 2011;13(2):117-25.
- Randi G, Franceschi S, La Vecchia C. Gallbladder cancer worldwide: geographical distribution and risk factors. International journal of cancer. 2006;118(7):1591-602.
- Hundal R, Shaffer EA. Gallbladder cancer: epidemiology and outcome. Clin Epidemiol. 2014;6(2):99-109.
- Ghosh Y, Thakurdas B. Carcinoma Gall Bladder: Past, Present, and Future. Int J BioMed. 2014;4(4):198-203.
- Das A. Epidemiology of Gallbladder cancer among North-Eastern States of India: A Review. Int. Res. J. Medical Sci. 2016;4(6):11-5.
- Pradhan SB, Joshi MR, Vaidya A. Prevalence of different type of gallstone in the patients with cholelithiasis at Kathmandu Medical College, Nepal. Kathmandu University Medical Journal. 2009; 7(3):268-71.
- Idris SA, Shalayel MHF, Elsidding KE, Hamza AA, Hafiz MM. Prevalence of different types of gallstone in relation to age in Sudan. Sch. J. App. Med. Sci. 2013; 1 (6): 664-67.
- Aslam HM, Saleem S, Edhi MM, Shaikh HA, Khan JD, Hafiz M et al.; Assessment of gallstone predictor: comparative analysis of ultrasonographic and biochemical parameters. International Archives of Medicine, 2013; 6(1):17.
- Watanabe Y, Gota H, Hikooka Y et al. Transpapillary biopsy in gall bladder carcinoma disease. GastrointesEndos 2000; 51:76-79
- Batra, Yogesh, et al. Gallbladder cancer in India: a dismal picture. Journal of Gastroenterology and Hepatology 2005; 309-314