FREQUENCY OF INCIDENTAL GALLBLADDER CARCINOMA IN CHOLECYSTECTOMY SPECIMENS

Jamshed Alam[1], Irfan ul Islam Nasir[2], Muhammad Iftikhar[3], Shaukat Hussain[1], Muhammad Alam[1], Yousaf Jan[1], Shehzad Akbar Khan[1]

ABSTRACT

Objectives*:* The aim of this study was to find the frequency of gallbladder carcinoma in cholecystectomy specimens.

Methods: This was a retrospective study conducted from January 2013 to December 2015 at Surgical Department of Hayatabad Medical Complex, Peshawar. Total of 310 cholecystectomy specimens of all age group and both sexes were analyzed, using convenient sampling. The percentage of carcinoma was observed and the results were recorded in percentages.

Results: In our study majority of the patients were female 92.9% (288/310). Most of the patients were more than 40 years of age. The most common presenting symptoms was abdominal pain 77.7% followed by dyspepsia 54% and features of acute cholecystitis (5%).

Conclusion: Gallbladder carcinoma although a rare tumor, carries worse prognosis and is mostly diagnosed after cholecystectomy on histopathology, so that diagnosis at early stage is very significant and all cholecystectomy specimens should be sent for histopathology.

Key Words: Gallbladder carcinoma.

INTRODUCTION

Carcinoma of gallbladder though rare is the most common malignancy of the biliary tract[1] and fifth most common gastrointestinal malignancy[2]. De Stoll first reported gallbladder carcinoma in 1771[3].Gallbladder carcinoma is more common in women and frequently increases with age[4].The etiology of gallbladder carcinoma is unknown. The risk factors include cholelithiasis (70-90%), various carcinogens,ethnic background, benign tumors and abnormalities in the union of pancreato-biliary ducts[5].

Diagnosis of gallbladder is difficult because there often are no noticeable signs in the early stages. Symptoms of gallbladder cancer include jaundice, pain, fever, nausea,vomiting, bloating, and lumps in the abdomen. Ultrasound, CT scan, MRCP/ MRI, liver function tests, alpha fetoprotein, CA 19-9 assay, biopsy, and blood tests can help diagnose gallbladder cancer. Ultrasound is the key radiologic investigation showing gallbladder stone, polyp or porcelain gallbladder. Laboratory investigations may reveal abnormal liver function test, leukocytosis and anemia. Mostly gallbladder carcinoma is diagnosed incidentally (0.2-1.1%) on histopathology after cholecystectomy done for gallstones and cholecystitis.[6,7] It is usually detected preoperatively in advanced stages[8]. The majority of gallbladder carcinomas are adenocarcinoma (90%) and rest includessquamous cell carcinoma, small cell carcinoma and adenosquamous carcinoma each 2%.[9]

The treatment of incidental gallbladder cancer depends on the stage of the disease as well as prior surgical procedure. For T1 disease, no further surgery is needed. For T2-T4 diseases, a complementary operation should be considered after performing imaging studies to rule out disseminated disease. In case of laparoscopic cholecystectomy, if carcinoma is suspected, extraction of gallbladder in endo-bag is recommended and the port-site is treated with radiotherapy or local excision when the diagnosis is made postoperatively.[10]The most important prognostic factor is the pathologic staging. The prognosis is good in early stage disease and poor in those patients with advanced disease.[11]

We conducted this study with the aim to determine the frequency of gallbladder carcinoma in patient's undergone cholecystectomies for chronic and acute cholecystitis in our population. We will share the results with local hospital and recommend on the basis of our results.

METHODOLOGY

It was a retrospective study conducted from January 2013 to December 2015 (total of 3 years duration) in Surgical Department, Hayatabad Medical Complex, Peshawar. Patients were prospectively recruited via non-probability convenience sampling. It composed of

[1] Department of Surgery, HMC, Peshawar - Pakistan
[2] Department of Surgical Oncology, Shoukat Khanam Hospital, Lahore
[3] Department of Surgery, Institute of Medical Sciences, Peshawar - Pakistan

Address for correspondence:
Dr. Jamshed Alam
Assistant professor of surgery unit HMC/KGMC
Email: drjamshedktk9@gmail.com
Cell: 0333-9119604

310 patients of both genders and all age groups with documented pathological reports of cholecystectomies.

All the procedures were performed by well-trained teams of the surgical department of Hayatabad Medical Complex, patients were selected from outpatient department (OPD) and were enrolled in our study after proper education and informed written consent was signed from each patient participated in the study. Patient demographics were recorded on a pre-formed data sheets. All the specimens were sent for histopathology. All consultant surgeons participating in the trial had experience in Laparoscopic and open cholecystectomy. Operations were supervised by 1 of the consulting surgeons. We included all the patients who presented with gall stones and were advised surgery and the exclusion criteria was none. Data was collected regarding cholecystectomies and their pathological reports. All the data was entered on SPSS 20 version and analysis was carried out. The results were compiled in table form.

RESULTS

In our study, total of 310 patients were enrolled for cholecystectomy. Majority 92.9% were females (288/310) and 7.1% (22/310) were males. Patients ranged less than 45 years were more affected 198/310 (63.8%) as shown in table 1.

Table 1: Demographic Features

Sex and age of patients	Number of patients	Percentages
Gender Female	288/310	92.9%
Male	22/310	7.1%
Age of patients Less than 45 years	198/310	63.8%
More than 45 years	112/310	36.1%

Table 2: Clinical features

Clinical features	Number of patients	Percentages
Abdominal Pain	241/310	77.7%
Dyspepsis	167/310	54%
Features of acute cholecystitis	15/310	5%

Table 3: Type of Surgical Procedure

Treatment outcome	Number of patients	Percentages
Laparoscopic cholecystectomy	89/310	28.7%
Open cholecystectomy	221/310	71.3%

Table 4: Pathological Report

Pathological report	Number of patients	Percentages
Chronic cholecystitis	213/310	68.7%
Acute cholecystitis	92/310	29.6%
Carcinoma	5/310	1.6%

Table 5: Types of Carcinoma

Types of carcinoma	Number of patients	Percentages
Adenocarcinoma	5/5	100%

Most of the patients presented with abdominal pain 77.7%, dyspepsia 54% and features of acute cholecystitis 5% as shown in table 2. Open cholecystectomy was performed in majority of patients (70.5%) as compared to laparoscopic cholecystectomy (29.5%) as shown in table 3.

In our study carcinoma of gallbladder was found in 5/310 specimens (1.6%) while the rest of pathological reports were consistent1 with chronic cholecystitis 213/310 (68.7%) and acute cholecystitis 92/310 (29.6%) as shown in table 4. The carcinoma found in 5 patients showed all to be adenocarcinoma as shown in table 5.

DISCUSSION

Gallbladder carcinoma is rare type of cancer world wide having some geographic predominance. Gallbladder carcinoma is more common in India and Pakistan than in the Western world.[12, 13] Women are more commonly affected than men, peak incidence in 6th and 7th decade.[14] In our study almost 92.9% of patients were female and 36.1 % patients aged more than 45 year.

Clinical examination and Ultrasound are inefficient tools for diagnosing early and asymptomatic carcinoma of gall bladder pre-operatively.[7] In our study majority of patients were having abdominal pain, dyspepsia and clinical features of acute cholecystitis. Ultrasound was the key imaging modality in our study.

In our study both open and laproscopic cholecystectomies were performed in all the cases and the histopathology reports were chronic cholecystitis in majority of patients followed by acute cholecystitis. Carcinoma was found in only 5 patients out of 310 (1.6%). Internationally approximately 1-2% of cholecystectomy specimen contains adenocarcinomas and 10% have small noninvasive lesions confined to the gall bladder.[15] Adenocarcinoma is the most common variety of malignancy found in gall bladder.[16]

It is observed that current practice is not to send cholecystectomy specimen for histopathology, solely relaying upon gross examination of the tissues to avoid additional financial burden on patient's family. Thus the

aim of this analysis was to determine the frequency of carcinoma gall bladder in post cholecystectomy specimens operated for cholelithiasis/cholecystitis.

CONCLUSIONS

Gallbladder carcinoma is rare entity with worse prognosis. The diagnosis is only confirmed by histopathology of cholecystectomy specimen. Like other tumours early stage carries good prognosis.

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