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A STUDY OF INCIDENTAL GALL BLADDER CARCINOMA IN PATIENTS UNDERGOING CHOLECYSTECTOMY

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ABSTRACT Gall bladder Carcinoma is one of the most common malignancy of the biliary tract. It's indolent and nonspecific clinical presentation and little occurance of pathognomonic radiological features, often hinders the diagnosis at an early stage. Most of the cases are diagnosed incidentally among patients underwent cholecystectomy. Gallbladder Carcinoma is a highly lethal disease, with only 10% patients presenting at a stage amenable to surgical resection. In this study we report incidental carcinoma of gallbladder in patients undergoing cholecystectomy in department of general surgery, Anugrah Narayan Magadh Medical College and Hospital, Gaya, Bihar over a period extending from December 2017 to June 2020.

KEYWORDS : Gallbladder, Carcinoma, Cholecystectomy, Incidental.

INTRODUCTION

Gall bladder cancer is the 5th most common cancer of the gastrointestinal tract and is the most common cancer of the biliary tract[1]. It is also the most aggressive cancer of the biliary tract with short median survival[2]. It has poor prognosis which is due to an aggressive biologic behavior and lack of sensitive screening tests for early detection[3]. This results in delayed diagnosis. The risk factors are advanced age, female gender, cholelithiasis, porcelain gallbladder, gallbladder polyps, congenital biliary cysts, chronic infection, and smoking. According to the data obtained from the national registry program of India, Northern India especially the Gangetic belt has a high incidence of gallbladder cancer[4]. The incidence of gallstone disease is high in Asian countries due to their food habits, rich in calories and fat[5]. Approximately 90% of gallbladder cancer have accompanying cholelithiasis[6], but only 3 to 5% of patients with cholelithiasis eventually develop gall bladder cancer[7].Females are more commonly affected than males. In India, gallbladder cancer is the 4th commonest cancer in females[8]. Peak age of incidence are 6th and 7th decades[9]. Only 30% of gall bladder carcinomas are suspected preoperatively. The majority are discovered incidentally during surgery or by pathological examination[10].Incidental gall bladder carcinoma is an incidental finding of carcinoma diagnosed during cholecystectomy or on histopathological examination of gall bladder specimens removed for benign gall bladder diseases. The incidence of Incidental gall bladder carcinoma is around 0.19 to 3.3% in literature[11].

AIMS AND OBJECTIVES

The aim of the present study was to report incidence and demographic profile of gall bladder cancers which were incidentally diagnosed during histopathological examination of cholecystectomy specimens done for benign gall bladder disease.

MATERIAL AND METHODS

An observational study was carried out. The hospital records and histopathology reports of 459 patients who had undergone cholecystectomy were studied. A retrospective study was done in department of general surgery, Anugrah Narayan Magadh Medical College and Hospital, Gaya, Bihar over a period extending from December 2017 to June 2020. All specimens of cholecystectomy received during the study period were included in the study. A total number of 459 cases of cholecystectomy were retrieved. Patient's personaldata, clinical information and histopathological findings were recorded. All the sections were reviewed and further sectioning was done wherever needed. Exclusion criteria included preoperative suspicion of malignancy before cholecystectomy.

RESULTS

Out of 459 cases of cholecystectomy, gallbladder cancer was detected in 6 (1.31%) cases and was more common in females (M:F ratio = 1:2). The age of occurrence ranged from 29 to 80 years. Most of the cases were at early stages and only two of them were in pT3 pathological stage. Adenocarcinoma was the most common histological type. A total of 459 cholecystectomies were done for symptomatic gall bladder disease during the study period. Of these 6 were positive for carcinoma on histopathological examination. Incidence of incidental carcinoma among all the routine cholec ystectomies coming for histopathological examination was 1.31%. The age of patients at diagnosis ranged from 29 to 80 years. 2 cases were males and 4 were females with male:female ratio of 1:2. Of these 6 carcinoma cases 4 were associated with gall stones. The most common clinical complaints were pain in right hypochondrium, nausea and vomiting. On ultrasonography 3 cases showed thickened wall of gall bladder. 2 cases were suspected intraoperatively and extended cholecystectomy was performed for these with removal of wegde of liver and enlarged lymph nodes. Gross features included thickened wall, ulcerated mucosa, small polypoidal elevation and nodular formation in different Gall Bladder specimens. Microscopically five were diagnosed as adenocarcinoma, two of which showed papillary pattern. There was one case of adenosquamous carcinoma. 3 cases were at stage pT1bNxMx, 2 cases were at stage pT2NxMx and 1 case was at stage pT3NxMx. None of the cases had distant metastasis or involvement of the regional lymph nodes histologically. Of the remaining 453 specimens, distribution of cases was as follows: Chronic cholecystits with Cholelithiasis - 332 (73.2%), Chronic cholecystits - 61 (13.4%), Chronic cholecystitis with cholesterolosis - 34 (7.6%), Acute on chronic cholecystis - 21 (4.6%), Xanthogranulomatouscholecystis-5 (1.2%).

DISCUSSION

Gall bladder carcinoma is the most frequent carcinoma of the extra hepatic biliary tract. Symptoms are non-specific and the diagnosis is often made at an advanced stage. In our study 459 patients underwent cholecystectomy and incidental gall bladder carcinoma was diagnosed histopathologically in 6 cases. The incidence of IncidentalGall bladder carcinoma was 1.31. In published literature, incidence of Incidental gall bladder carcinoma varies from 0.35% to 2%[12].The most important risk factor for gall bladder carcinoma is gallstones, with an 8.3 times higher risk than general population[13]. Associated cholelithiasis was found in 75% to 98% of incidental gall bladder carcinoma[14]. Larger stones predispose a greater risk, with stones >3 cm having 9.2–10.1 times higher risk than stones <1 cm[1].This is attributable to greater local

epithelial irritation. In literature right upper quadrant pain is reported as the most common symptom (54–83%), followed by jaundice (10–46%), nausea and vomiting (15–43%), anorexia (4–41%), and weight loss (10–39%)[1].All our cases presented with pain in the right upper quadrant, nausea and vomiting. In our study 8 cases were adenocarcinoma and one was adenosquamous carcinoma. Adenocarcinoma is the most common histologic type, accounting for 98% of all gallbladder tumours. Other variants include papillary, mucinous, squamous, and adenosquamous carcinoma[15].Rare types include carcinosarcoma, small cell carcinoma, lymphoma, signet ring cell-type tumours, and metastases[16].Histological subtype of gall bladder carcinoma is an important prognostic factor. Papillary carcinoma has the best prognosis, whereas squamous and adenosquamous carcinomas have poorer prognosis. Small cell carcinoma, though very rare, metastasizes early and death often occurs shortly after diagnosis[17].In our study, 3 cases were at stage pT1bNxMx, 2cases were at stage pT2NxMx and 1 case was at stage pT3NxMx. The treatment to gall bladder carcinoma depends on the stages of tumor. The extent of surgery depends on depth of invasion (T Stage).Cholecystectomy is done for pT1a tumors, where as for pT1b tumors cholecystectomy with lymph node dissection is performed. For pT2 and more advanced tumors, liver resection with gall bladder bed and lymph node dissection are recommended. Most Gall bladder carcinoma are diagnosed at an advanced stages and show poor prognosis with a five year survival rate of less than 5%[18].Incidental gall bladder carcinoma are usually detected at an early stage and shows best prognosis[19].

CONCLUSION

Routine histopathological examination of all cholecystectomy specimens is recommended to rule out Incidental gall bladder carcinoma. Incidental gall bladder carcinoma are mostly detected at an early stage and thus has better prognosis. Cholecystectomy for gallstones remains the ideal target for the prevention of gallbladder cancer as they have a well-described association are easily detectable by ultrasound. In this context, the role of prophylactic cholecystectomy in asymptomatic patients is debatable. The rate of incidental carcinoma of gall bladder is 1.13% in our region. Routine postoperative histopathological examination of gall bladder is mandatory.

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