

# Incidental Gall Bladder Carcinoma - A Rare Case with Review of Literature

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**Abstract:** Gall bladder cancer is a rare and aggressive disease. Incidental gall bladder carcinoma is a gall bladder cancer diagnosed during histopathological examination post cholecystectomy. The incidence of incidental gall bladder carcinoma ranges from 0.2-3.3%. Increasing trend of laparoscopic procedures has made cholecystectomies as common surgical specimens received for histopathological examination. This has led to an increasing trend of detecting incidental gall bladder carcinoma on routine cholecystectomy specimens. We present a case of incidental gall bladder carcinoma in a cholecystectomy specimen in a 50 year old female patient operated for chronic cholecystitis.

**Keywords:** Adenocarcinoma, Biliary type, Cancer, Gall Bladder, Incidental.

## 1. Introduction

Gall bladder cancer is a rare malignancy having worldwide incidence ranging from 0.3-1.5% (1,2,3). In India, the incidence ranges from 0.8-1%, central India having a high incidence compared to southern India (4). Incidental gall bladder carcinoma are those cancers which are detected at the time of histopathological examination. These have incidence ranging from 0.2-3.3% (5).

We present a rare case of incidental gall bladder carcinoma in a 50 year old female patient where cholecystectomy was performed for chronic cholecystitis.

## 2. Case Report

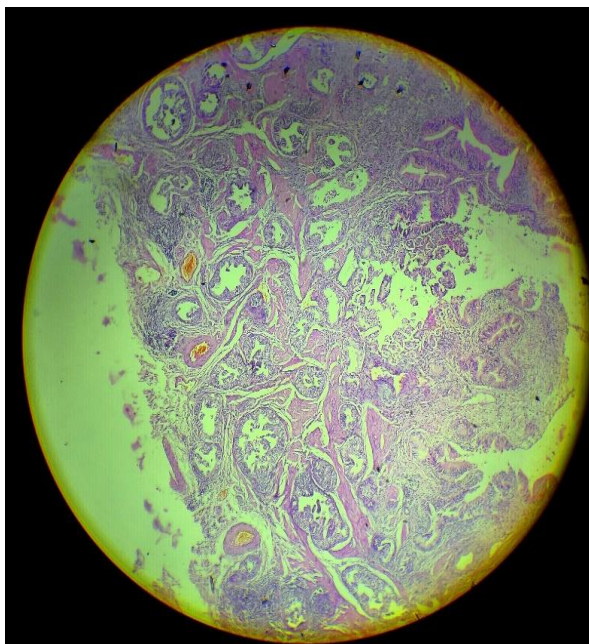
A 50 year old female patient presented with right upper abdominal pain since 6 months. The pain was intermittent, appearing after consumption of food. Patient had no history of diabetes mellitus, hypertension, smoking, dyslipidaemia or gall stone disease. The patient was clinically diagnosed as chronic cholecystitis.

Magnetic resonance cholangio-pancreatography findings revealed moderately distended gall bladder with features suggestive of underlying chronic cholecystitis. Cholecystectomy was done and specimen was sent for histopathological examination. Gross examination of the specimen revealed gall bladder showing diffuse, irregular thickening of the wall of the gall bladder with polypoidal tumor measuring 1.5 x 1 x 0.3 cm near fundus and body of the gall bladder. Cut section of the tumor was grey-white.

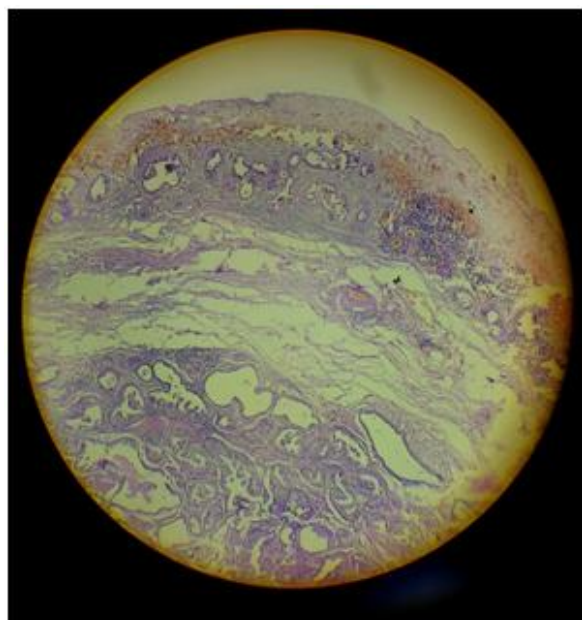


**Figure 1:** Gross examination - Diffuse thickening of gall bladder wall with polypoidal growth

Microscopy revealed neoplastic cells arranged in tubules as well as papillary pattern lined by cuboidal to columnar cells showing enlarged vesicular nuclei with heterogenous chromatin and scanty to moderate amount of cytoplasm. Stroma was desmoplastic and revealed dense and diffuse chronic non specific inflammation. Tumor was seen infiltrating upto serosa.

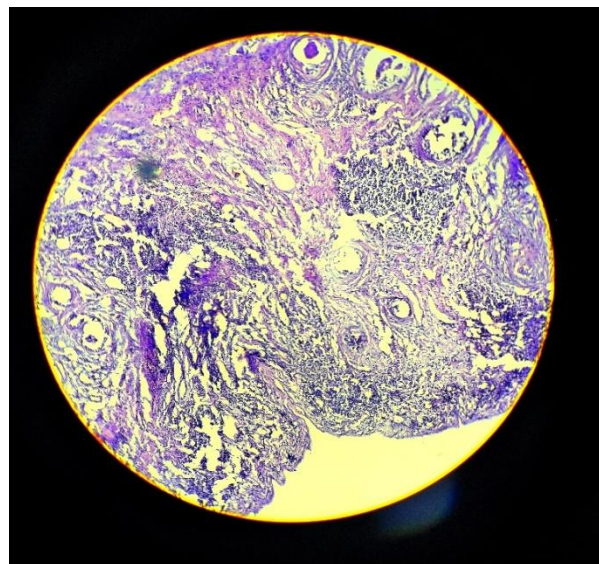


**Figure 2 (a):** Photomicrograph revealing neoplastic cells showing tubular as well as papillary pattern (100 X H&E).



**Figure 2 (b):** Photomicrograph showing tumor extending upto serosa (100 X H&E).

Gall stones were not revealed in the specimen. Diagnosis of moderately differentiated adenocarcinoma of the gall bladder - biliary type with chronic cholecystitis was given.



**Figure 3:** Photomicrograph showing dense and diffuse chronic non specific inflammation (100 X H&E)

### 3. Discussion

Incidental gall bladder carcinoma is rare, commonest age group being 6<sup>th</sup> to 7<sup>th</sup> decade of life and is 2-6 times more common in females as compared to male patients which was comparable to our study. In 70-98% of carcinomas of the gall bladder, gall stones are the major risk factor. Gall bladder carcinoma related to cholelithiasis has incidence ranging from 0.3-12% (6). Estrogen causes super saturation of cholesterol in the bile which is attributed to carcinogenesis (7). Neha Singh et al has studied 50 cases of gall bladder carcinomas, 74% of these were associated with gall stones (8). The other risk factors are chronic inflammation which causes regeneration and further neoplastic transformation, as seen in our case (1).

Also, obesity, smoking, intake of fried food are related to gall bladder carcinoma (9). In 26% cases, familial association has been described (9).

Majority of these patients are asymptomatic. Symptomatic cases present with vague right abdominal pain, weight loss and fever (10). Finding of thickened gall bladder wall or polypoidal lesion on imaging can give clue to the diagnosis. The tumor markers mostly used are CEA and CA 19.9 (10).

Gross examination of incidental gall bladder carcinoma in routine cholecystectomy specimen shows areas of mucosal irregularity or thickened and polypoidal lesions at fundus or body (10). Microscopy of incidental gall bladder carcinoma can be biliary type adenocarcinoma of the gall bladder which shows papillary and tubular arrangement as seen in our case. Other types include intestinal type adenocarcinoma, mucinous type adenocarcinoma, clear cell type adenocarcinoma, signet ring cell type adenocarcinoma, hepatoid carcinoma or sarcomatoid carcinoma (11).

Incidental gall bladder carcinoma are aggressive cancers with overall 5 year survival ranging from 5-32%, only 10% cases being diagnosed while restricted to the gall bladder (12,13,14). In our case, tumor was restricted to gall bladder and patient is on follow-up. Cholecystectomy with negative

cystic duct margins is the treatment of choice. For metastatic tumor, chemotherapy or radiation is preferred.

#### 4. Conclusion

Incidental gall bladder carcinoma is a rare cancer with dismal prognosis. Histopathological examination is essential for all cholecystectomy specimens, which facilitates the detection of tumors that are not apparent on clinical examination.

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