

## CASE REPORT

## Gallbladder Carcinoid Tumor in a 68 Years Old Patient

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### ABSTRACT:

#### BACKGROUND:

Gallbladder carcinoid tumor is a very rare neoplasm, usually lacking specific symptoms. In most instances, gallbladder carcinoid tumors are incidentally found after a cholecystectomy for other gallbladder disorders or on postmortem autopsies.

#### CASE PRESENTATION:

We are presenting a case of a 68 years old male patient with a carcinoid tumor of the gall bladder with liver involvement.

Patient presented with signs and symptoms of acute cholecystitis. Conservative treatment was done. Investigations were done for the patient and surgery was performed as elective open cholecystectomy 6 weeks later. Multiple liver nodules were found during surgery ,biopsy material was taken from these nodules and send for histopathology in addition to the removed gall bladder.

#### CONCLUSION:

A very rare condition of Gallbladder carcinoid tumor with liver metastasis.

#### INTRODUCTION:

Carcinoid tumor is an endocrine neoplasia described for the first time in 1888 and rarely observed in the gallbladder and extrahepatic bile ducts. Gallbladder carcinoid tumor was first reported by Joel in 1929<sup>(1)</sup>. There are no specific signs or symptoms and patients often complain of upper abdominal pain and dyspepsia akin to that observed in patients with gallstone disease. Imaging is also not confirmatory and commonly a mass lesion (that may be pedunculated) is seen in the gallbladder. We herein present a classical carcinoid tumor found in gallbladder of a 68-year-old man and review the relevant literature on this rare entity

#### CASE REPORT:

A 68-year-old male presented to the surgical

emergency unit in Al Sader teaching hospital in Najaf on August/30/ 2010 with pain in the right upper abdomen and fever for the last 24hrs duration .He had a history of mild attacks of pain in the right upper abdomen with fullness for the last 6 months. There was no altered bowel habits, anorexia or weight loss. On examination the patient was not icteric ,not pale or cyanosed. His vital signs were normal apart from elevated temperature(37.8c°).Abdominal examination revealed tenderness in the right hypochondrium with positive Murphy's sign. Hematological investigations (including liver function tests) were normal apart from high ESR(73). His chest X-ray and ECG were normal ,urine and stool routine examinations proved normal .Abdominal sonography was performed which revealed distended, thickened wall gallbladder with multiple stones ,with the impression of cholelithiasis with acute cholecystitis. Conservative treatment was given to the patient. Elective open cholecystectomy was done to him 6 weeks later ,and during surgery we noticed multiple yellow to grayish nodules all over the liver surface, so biopsy was taken from two of these nodules and sent for histopathological diagnosis as well as the removed gall bladder. Pathological gross examination revealed (9x4x3.5cm) gall bladder ,cross section reveals multiple brown color stones, wall thickness (0.3cm) with multiple gray brown section revealed thickened areas ( nine)and there was single gray yellow nodule measure (0.5x0.5cm) attach to outer surface of fundus, all submitted for histopathological examination.Liver biopsy revealed single small piece measure (1.2x0.9cm) grayish in color cross section reveals multiple small yellow nodules, Fig1(a,b).Microscopic examination reveals solid nests of small monotonous cells having central nuclei with stippled chromatin separated by fibrovascular septa centered in the inflamed mucosa , and some penetrated the muscular layer unassociated with mitosis or necrosis, no vascular or lymphatic permeation. Liver biopsy:-sections reveal multiple nodules composed of solid nests with

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## GALLBLADDER CARCINOID TUMOR

same nuclear criteria. Fundal nodule showing solid nests of tumor cells with attached hepatic tissue Fig2(a,b). Immunohistochemical findings were as follow; (chromogranin A:-diffuse positive) Fig2(c) ,(LCA:-negative)and(CEA:-negative).The diagnosis was Malignant carcinoid of gall bladder (classical type) with liver metastasis.

### DISCUSSION:

Carcinoid of gall bladder and bile duct is a rare tumor <sup>(2)</sup>. The carcinoid tumor originates from the Kultchitsky cell, which is derived from embryonal neural crest cells <sup>(2)</sup>.It is relatively rare endocrine tumor arising principally in the gastrointestinal tract representing less than 2% of all primary gastrointestinal tumors. Appendix, jejunum and rectum are the mostly affected sites while gall bladder is a rare site<sup>(3)</sup>. Sanders reported only 7 tumors (0.2%) in the gallbladder among 3633 digestive tract carcinoids<sup>(4)</sup>. Godwin also reported only one case (0.04%) in the gallbladder among 2837 carcinoids <sup>(5)</sup>.Age of presentation including our case, the age of patients ranged from 38 to 81 years<sup>(6)</sup>. The sex distribution of these lesions paralleled that of gallbladder carcinomas, with a marked female predominance that accounts for 75% of cases in the largest series to date<sup>(7)</sup>. The most common presentation includes vague abdominal pain or discomfort and associated cholelithiasis, in most instances, they usually lack specific symptoms<sup>(8)</sup>. Preoperative diagnosis of carcinoid tumor of the gallbladder is difficult, the majority of reported patients underwent surgery; Surgical strategies have varied from simple cholecystectomy

(including laparoscopic cholecystectomy) to extensive hepatic lobectomy, which depended on the size and stage of the lesion, and particularly whether liver metastases were present <sup>(9)</sup>. Modlin IM,2003 indicated that 88.2% of gallbladder carcinoids remain localized and only 11.8% of patients were found with distant metastases<sup>(10)</sup>. Although some lesions were removed laparoscopically<sup>(11)</sup>, some authors have expressed reservations with regard to laparoscopic excision of gallbladder malignancies since it carries a high risk of port metastases and dissemination<sup>(12)</sup>. With this consideration, open cholecystectomy is preferable. There is no general agreement on when, or even if, chemotherapy should be started in patients with malignant carcinoid. Conventional chemotherapy including doxorubicin,5-fluorouracil, cisplatin, and streptozocin has minimal efficacy but may have some utility in undifferentiated or highly proliferating neuroendocrine carcinomas. Biotherapy using somatostatin analogs such as octreotide or lanreotide have been assessed in treatment of metastatic disease and remain the only effective pharmacotherapeutic option that improves symptomatology and quality of life with minimal adverse effects<sup>(13)</sup>.

### CONCLUSION:

Gallbladder carcinoid is an uncommon neoplasm of the gallbladder and diagnosis is often made postoperatively on histopathological results. The disease has a poor outcome and needs to be treated aggressively. Thus, surgeons at times do encounter such rare neoplasms and hence should be aware of them.



**Figure 1: Gross appearance of the gall bladder showing multiple brown color stones, wall thickness (0.3cm) with multiple gray brown section revealed thickened areas ( nine)(a), and there was single gray yellow nodule measure (0.5x0.5cm) attached to outer surface of fundus(b).**

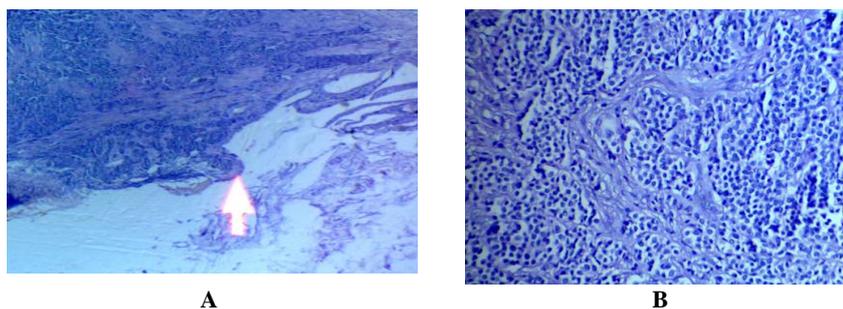


Figure 2(a,b): Hematoxylin & eosin staining sections showing gall bladder mucosa(→, arrow)(a) ,beneath which lie solid nests of small monotonous cells with round-to-oval nuclei .Plenty of vascular channels seen between the tumor cells (b){original magnification (a)× 20,(b)× 40}.

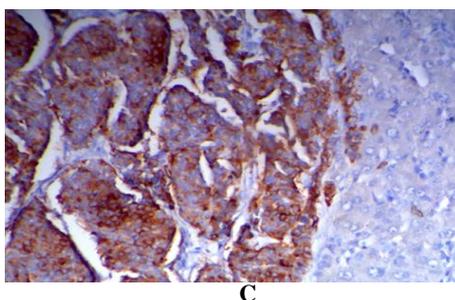


Figure 2(c): Immunohistochemical staining sections showing the tumor cells were diffusely positive for chromogranin A stain (Chromogranin A stain, ×40).

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