
Carcinoma *in situ* gall bladder in a young woman with large gall bladder mass

Dear Editor,

A 20-year-old south Indian woman presented with occasional right upper abdominal pain. She did not have jaundice, anorexia, or weight loss. There was no family history of similar illness. As blood parameters were normal, ultrasonogram of abdomen was done, which revealed a gall bladder polyp and no calculus. Contrast enhanced computerized tomogram revealed a gall bladder mass filling its entire lumen without breach in the wall. Regional lymph nodes were enlarged—largest being 1.2 cm. Common bile duct size was normal. Staging laparoscopy followed by radical cholecystectomy (removal of gall bladder along with 2-cm wedge of liver belonging to segments 4b and 5 along with removal of lymph nodes in hepatoduodenal ligament, common hepatic artery region, and retro pancreatic region) was done.

Cut section of specimen [Figure 1] showed a 7.5 × 3.5 cm proliferative growth occupying entire gall bladder with broad base. Histopathological examination of the gallbladder [Figure 2] revealed papillary neoplasm arranged in papillary and tubular pattern with areas of high grade dysplasia in it. With this picture, a diagnosis of carcinoma *in situ* arising in the background of tubular adenomatous polyps (intracholecystic papillary neoplasm with high grade intraepithelial neoplasia) was attained. Total 13 lymph nodes dissected were examined. None of 13 lymph nodes dissected were involved by the tumor.

What are all the types of gall bladder mass?

Gallbladder mass is classified as benign tumors, pseudo tumors, and malignant neoplasms.^[1] Majority of the mass lesions are benign cholesterol polyps.^[2] Gallbladder adenoma accounts for only 1% of all lesions, although it can turn into invasive carcinoma.^[3,4]

What are the risk factors for Gall Bladder Cancer (GBC)?

A solitary gallbladder polyp of size more than 1 cm in the background presence of gallstone has increased risk for malignant transformation. Ethnicity including north Indian female, Mexican American have increased risk for developing GBC than normal population. Choledochal cyst, worm infestations (*Clonorchis sinensis* and *Opisthorchis viverrini*), and family history of biliary malignancy are other risk factors of GBC.^[4,5] Our patient had a gall bladder mass of size 7.5 cm and regional lymphadenopathy bigger than 1 cm, which were risk factors for malignancy. However, she did not have cholelithiasis or family history of malignancy. Other risk factors, such as worm infestations or choledochal cyst, were ruled out in imaging.

What is peculiar in the presentation of this patient?

Incidence of gall bladder malignancy in young people is very less.^[5] Less than ten GBC cases have been reported in patients younger than 25 years, so far in the literature. Himalayan belt of North India, Nepal, and Bangladesh has very high incidence of GBC. In contrast, the latter is not common in south India.^[6] Our patient was a 20-year-old south Indian female.

How to manage a suspicious gall bladder mass?

A suspicious gall bladder mass should always be approached radically. At least a wedge of 1 cm of liver should be resected

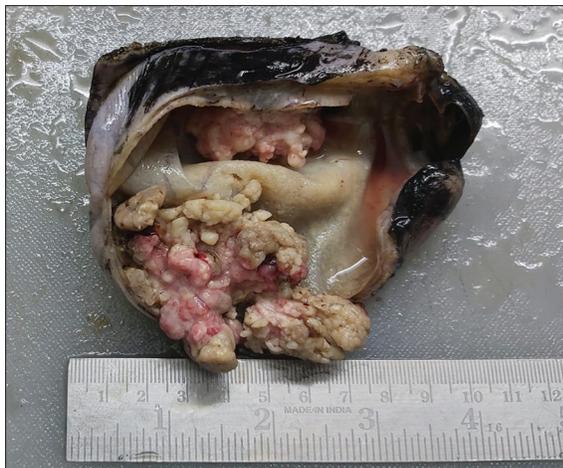


Figure 1: Cut section of gross specimen showing an ulcero proliferative growth of size 7.5 × 5 cm arising from fundus and body of gall bladder

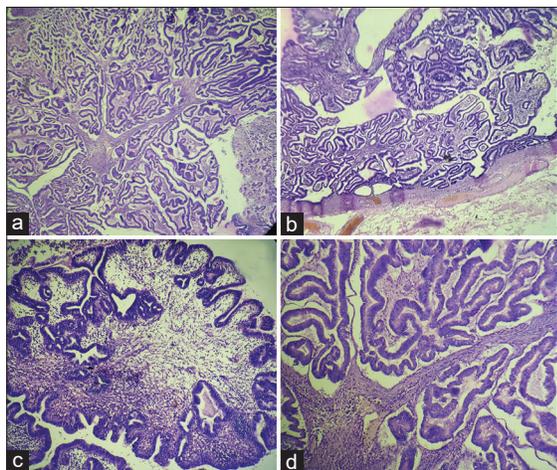


Figure 2: (a) Section showing proliferating papillary neoplasm with fibrovascular core (H and E, 4x). (b) and (c) Sections showing papillary and tubular pattern of lesion (H and E, 20x). (d) Areas showing high grade dysplasia (H and E, 20x) (H and E—hematoxylin and eosin) (number accompanying—magnification)

along GB bed in order to avoid breach in tumor. A frozen section confirmation of malignancy should be promptly followed by regional lymphadenectomy. Simple cholecystectomy in a GB mass with suspicion of malignancy may lead to tumor spill and may render a curable resection, palliative.^[7] In our case, we did radical cholecystectomy as described.

What is the prognosis of GBC?

By and large, GBC has very poor prognosis. Advanced tumors with lymph node and systemic spread have worse prognosis. Diagnosed mostly at advanced stage, the 5-year survival rates for T3 and T4 tumors are 12% and 5%, respectively.^[8] Fortunately, T1 and T2 GBC have 95%–99% and 70% 5-year survival rates, respectively.^[9] Generally, tumors arising at young age are usually aggressive.^[10] Reports of young GBC so far had shown very poor

prognosis with survival less than a year following diagnosis. In contrast, our patient was operated at earlier stage of *in situ* carcinoma without loco regional spread and hence possesses relatively favorable prognosis.

Our patient had few features, which are not very common in GBC. She was a young woman with no ethnic predisposition. She neither had cholelithiasis nor choledochal cyst. In spite of harboring a huge adenoma, she possessed only Carcinoma *in situ*.

Declaration of patient consent

The authors certify that they have obtained all appropriate patient consent forms. In the form the patient(s) has/have given his/her/their consent for his/her/their images and other clinical information to be reported in the journal. The patients understand that their names and initials will not be published and due efforts will be made to conceal their identity, but anonymity cannot be guaranteed.

Financial support and sponsorship

Nil.

Conflicts of interest

There are no conflicts of interest.

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Submitted: 14-Aug-2020
Revised: 24-Mar-2021
Accepted: 30-May-2021
Published: 14-Apr-2022

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Access this article online	
Quick Response Code:	Website:
	www.ijpmonline.org
	DOI:
	10.4103/IJPM.IJPM_979_20

How to cite this article: Anand S, Velusamy S, Venkatachalam S. Carcinoma *in situ* gall bladder in a young woman with large gall bladder mass. *Indian J Pathol Microbiol* 2022;65:494-6.

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