

CASE STUDIES

An unusual presentation of adenosquamous carcinoma of gallbladder

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Abstract

Carcinoma of the gallbladder is the most common malignancy of the biliary tract. Although adenocarcinomas account for more than 90% of gallbladder cancers, the incidence of adenosquamous carcinomas (ASCs) is only approximately 5%. ASCs have aggressive biological behavior due to their potential for direct extension into the liver and neighboring structures like stomach, duodenum, and transverse colon. In most cases, the disease would have advanced at the time of diagnosis and the prognosis might be dismal when compared to ordinary adenocarcinoma of the gallbladder. We present here a rare case of ASC of gallbladder in a 59-yr-old female who presented with right upper abdominal pain.

Keywords: adenosquamous, gallbladder, carcinoma, wedge resection

Introduction

The incidence of gallbladder carcinoma (GBC) ranges from 0.72-21 cases per 1,00,000 population worldwide. The male to female ratio is 1:3 and median age at diagnosis is 73 years.¹ Adenosquamous cell carcinoma (ASC) of the gallbladder is a rare histologic subtype, accounting for 1-5% of GBCs.² Patients with ASCs commonly have a large mass replacing the gallbladder fossa. These are locally invasive and less frequently metastasize to lymph nodes or the other organs. Most of the patients present at advanced stage of the disease, hence complete surgical resection is difficult and the prognosis is poor.³

Case report

A 59-year-old woman presented with two-month history of recurrent right hypochondriac pain and occasional bilious vomiting. Per abdomen examination showed tenderness in hypogastrium with vague mass lesion. Routine investigation revealed Hb of 9.6 gm/dl and ESR of 26 mm at the end of one hour. Ultrasound of abdomen showed thickened gallbladder wall with mass lesion extending into the liver. Two gallstones were also noted. CT abdomen showed mass lesion in gall bladder with invasion of porta hepatis and intra hepatic biliary radicals (IHBR) dilatation (Fig. 1).

Hence explorative laparotomy with segmental resection of the liver was done. The cholecystectomy specimen was grossly measuring 8x7x4 cm with thickened wall and dull surface having gallstones with friable areas. Microscopy showed ulcerated surface with dysplastic epithelium and tumor gland penetrating the wall forming serosal nodule (Fig. 2a and 2b). Squamoid areas (>50%) with dysplastic epithelium having hyperchromatic nuclei and many dyskeratotic cells was also noted (Fig. 2c and 2D). Based on these findings, the diagnosis was concluded as stage II ASC of gall bladder. Post-operative period was uneventful and no evidence of recurrence or metastasis was detected during one year follow-up.

Discussion

Primary carcinoma of gallbladder is an uncommon malignancy and majority of them are adenocarcinomas (80-95%) with papillary, tubular, mucinous, signet cells or clear cell types.⁴ Less common types of GBC are small cell carcinoma, undifferentiated or anaplastic carcinoma (2-7%), squamous cell carcinoma (1-6%), and adenosquamous carcinoma (1-4%). Since ASC is a rare histological subtype, majority of the reported cases are either individual cases or small case series.^{5,6} The well-established risk factors

Fig.1: CT abdomen showing thickened gall bladder with mass lesion invading into the liver segment

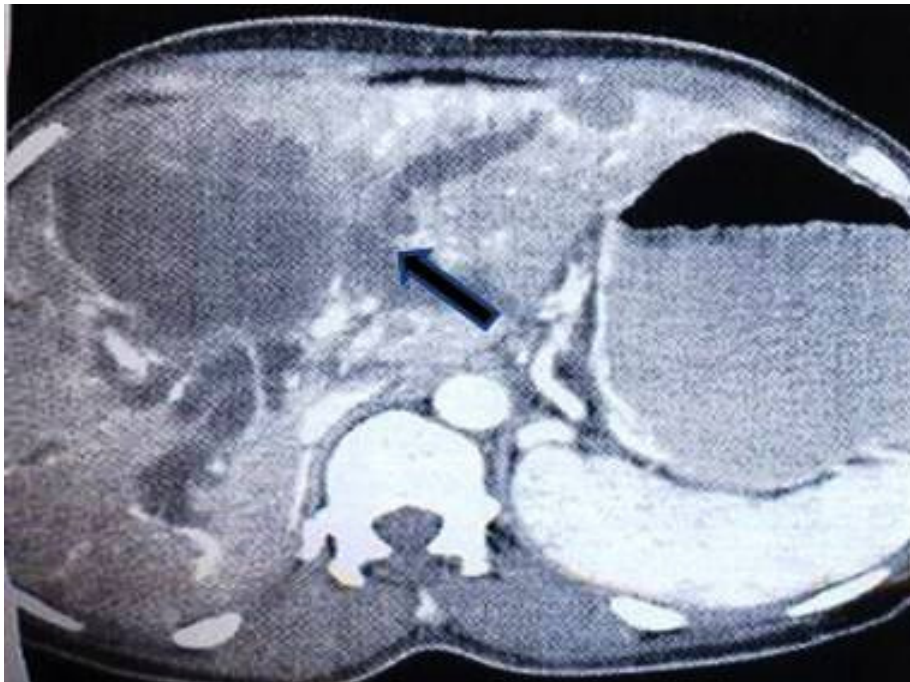
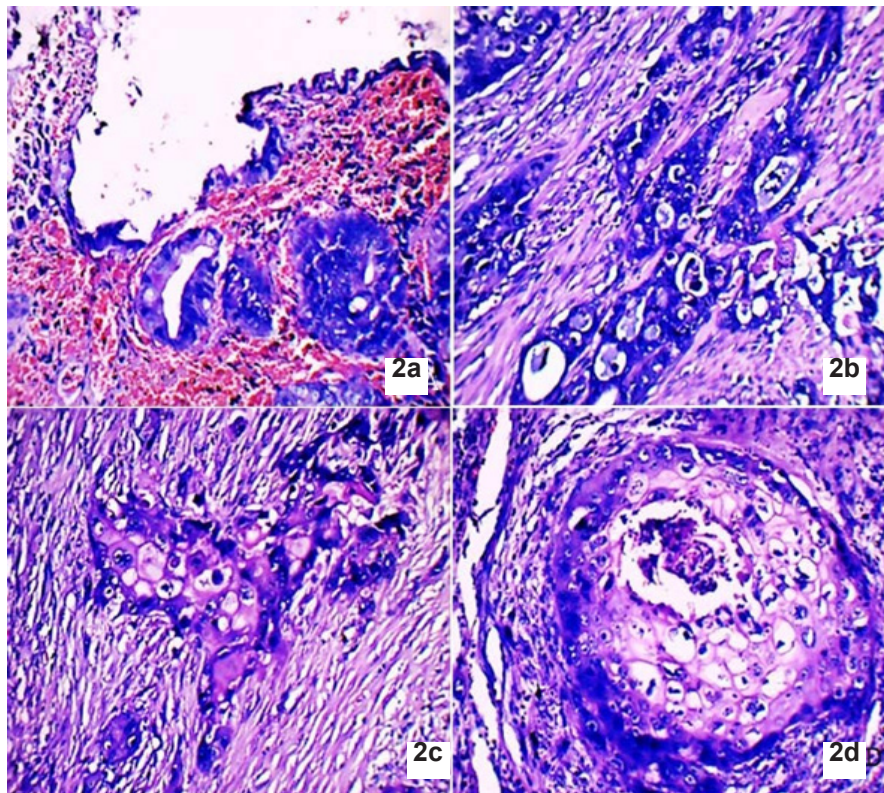


Fig. 2a: Histopathology showing ulcerated area with lamina propria showing tubules lined by atypical cells, 2b: Invasive atypical glands in the muscular layer, 2c: Tumor clusters in muscular layer with squamous differentiation and 2d: Atypical squamous cells in clusters in muscular layer. [H&E, X400]



of ASC, such as female sex, postmenopausal status, cigarette smoking, and cholelithiasis, are similar to that of gallbladder adenocarcinomas.

The gallbladder adenocarcinoma and ASCs produce non-specific symptoms like anorexia, weakness, weight loss, jaundice, and pain in the right upper quadrant. Imaging patterns of CT scan may appear as a mass replacing the gallbladder in 40-65% of cases, focal or diffuse gallbladder wall thickening in 20-30%, and as intraluminal polypoid mass in 15-25%. Liver infiltration is identified in contrast-enhanced CT.⁴ Grossly, the mass arising in the fundus appears as ulceroinfiltrative or polypoid growth or plaque-like mural thickening with wall induration.⁶ Histologically, ASCs show admixed malignant glandular and squamous component on histopathology.⁷ The squamous component of >25% is usually taken to classify it as ASC.⁶ In the present case, the squamoid component was >50%. The histologic features may vary from well- to poorly-differentiated keratinizing squamous cell carcinoma.⁷ These tumors grow more aggressively with frequent invasion to the liver.³ The clinical and pathological results of the present case correlated well with the literature findings.

Therapeutic options for GBCs are limited because of the late-stage presentation of the disease. Systemic or regional chemotherapy have reported little success.⁴ Prognosis of ASC after resection is poor. The survival rate is significantly better after radical resection compared to resection of primary tumor alone.³ The overall five-year survival rates of ASC is less than 5%, with a median survival of less than 6 months. The most important prognostic factors are histologic type, histologic grade, and stage of the tumor.⁴

To conclude, gallbladder adenocarcinoma is a rare malignant tumor and ASC is still rarer. Reporting this rare variant adds to the literature and helps in better understanding the biological nature and pathological characteristics of this rare tumor.

Competing interests

The authors declare that they have no competing interests.

Citation

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