

A RARE CASE OF ADENOSQUAMOUS VARIANT OF GALLBLADDER CARCINOMA

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ABSTRACT

The most prevalent cancer of the extrahepatic biliary tract is gallbladder carcinoma with adenocarcinoma as the most common variant while adenosquamous carcinoma of the gallbladder represents the rare variant of gallbladder cancers. We are presenting the instance of a 61-year-old woman who has complained of abdominal pain from umbilical and epigastric region and radiating towards the back since 7 days. Ultrasonography showed heterogeneously hyperechoic collection in gallbladder fossa and CECT whole abdomen showed a well defined rounded heterogenous enhancing mass lesion arising from fundus of gallbladder with adjacent liver bed suspecting neoplastic etiology. Laproscopic cholecystectomy was done under general anaesthesia. The sample was forwarded to the pathology department for histopathological analysis and diagnosis of Adenosquamous carcinoma of gallbladder was made.

KEYWORDS: Adenosquamous carcinoma, Gallbladder, Cholecystectomy.

INTRODUCTION

Gallbladder carcinoma is a uncommon hepatobiliary malignancy with annual incidence of around 2/100000 cases in the United States while India (northern) reports 4.5/100000 cases for men and 10.1/100000 cases for women (1-2). The most prevalent kind of gallbladder cancer is adenocarcinoma, although adenosquamous carcinoma of the gallbladder is considerably a rarer subtype that accounts for 1-5% of gallbladder malignancies with a dismal prognosis (3). The aggressive nature of these tumors can spread to nearby organs such as the liver, stomach, duodenum, omentum and transverse colon. It is composed of squamous and malignant glandular components, with the squamous component making up between 25% and 99% of the entire tumor^[4]. The proliferative capacity is higher in the squamous component than in the adenocarcinoma component. The mainstay of treatment remains complete surgical resection (3).

Women has more incidence of gallbladder cancer than men (3-4:1). At the time of diagnosis, 90% of the patients are 50 years of age or older (5-6). Chronically inflamed gallbladders have both pyloric and intestinal gland metaplasia; however, intestinal metaplasia is believed to be a more potent predictor of the development of cancer (7-9). A number of risk factors have been associated with an increased risk of gallbladder carcinoma including chronic cholecystitis

due to gallstones (the most common), segmental adenomyomatosis (10), obesity, porcelain gallbladder, primary sclerosing cholangitis, cholecystoenteric fistula and familial adenomatous polyposis or gardner syndrome (11).

CASE REPORT

A 61 year old women presented to the Surgery out patient department at Era's Lucknow medical college and hospital with the complaints of pain in the abdomen since 7 days which was sudden in onset, progressive in nature, colicky in character, originating from umbilical and epigastric region and radiating to the back. On examination, abdomen was distended, umbilicus was centrally located and inverted, no scar marks, no dilated or distended veins were present. All quadrants were moving with respiration, Striae albicans present in the lower abdomen, no palpable organomegaly, no guarding or rigidity present. No shifting dullness, no fluid thrill was present. Her biochemical results were within normal limits except Serum Alkaline Phosphatase which was raised to 139 units per liter (Normal=38-126). Ultrasonography showed heterogeneously hyperechoic collection in gallbladder fossa and Contrast enhanced computed tomography of whole abdomen revealed a well defined rounded heterogenous enhancing mass lesion arising from fundus of gallbladder with adjacent liver bed suspecting neoplastic etiology. The Laparoscopic

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Cholecystectomy was done under General Anesthesia. The sample was forwarded to the pathology department for histopathological analysis.

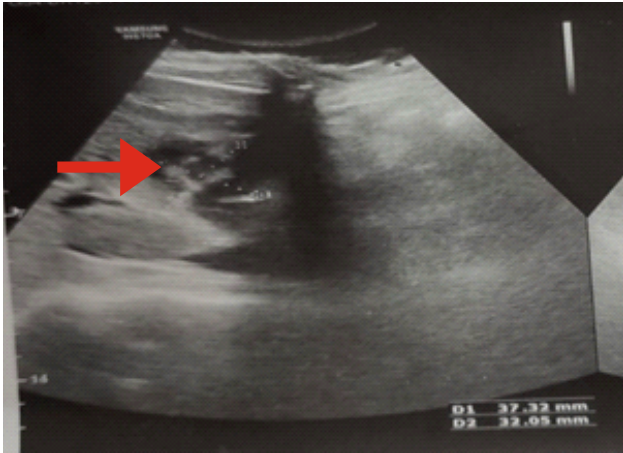


Fig.1:Ultrasound of Abdomen showing Heterogeneously Hyperechoic collection in Gallbladder Fossa (Arrow).

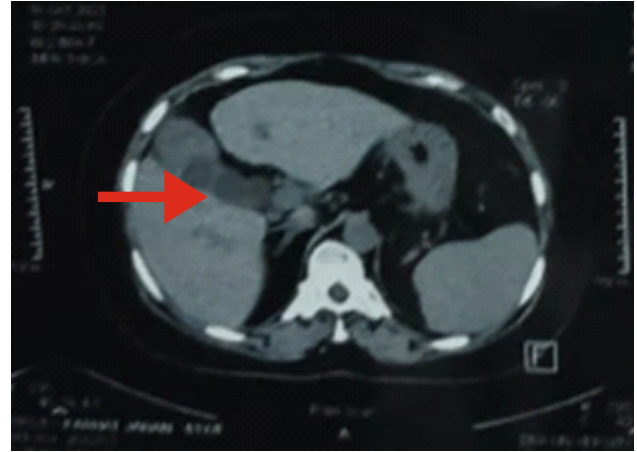
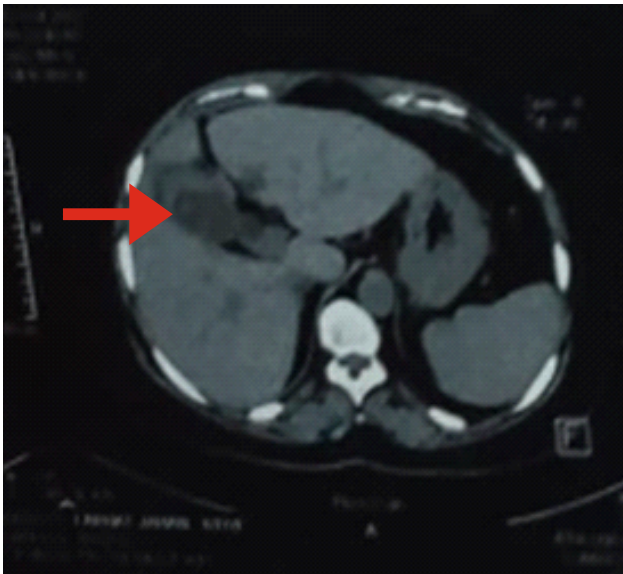


Fig. 2: Contrast enhanced computed Tomography Abdomen showing well defined rounded Heterogenous enhancing Mass(Arrow) lesion arising from fundus of Gallbladder with adjacent Liver.

PATHOLOGICAL FINDINGS

Gross- Received an already opened up laparoscopic cholecystectomy specimen measuring 7x4x3 cm. Outer surface is gray-white to gray-brown, smooth. Cut surface shows atrophied mucosa with gray-white to gray-brown growth measuring 4.5x3cm at the body-fundus region. Wall thickness varies from 0.4 to 1.5cm. Multiple yellow coloured stones present.

(Representative Sections Taken)



Fig. 3: Outer surface of the Gallbladder.



Fig. 4: Cut Surface of the Gallbladder showing Atrophied Mucosa with gray-white to gray-brown growth (Arrow) at Body Surface area.

MICROSCOPY

Section from the tissue shows atypical cells arranged in cords, sheets and islands. These atypical cells showing nuclear pleomorphism, increased nuclear cytoplasmic ratio, focal hyperchromasia, prominent nucleoli and dense eosinophilic cytoplasm reaching upto the serosa. Focal area shows significant keratinization as keratin pearls. Section also shows focal glands formation lined by these atypical cells invading the muscularis layer. There is no lymphovascular invasion or perineural invasion seen in the sections examined.

IMPRESSION

Adenosquamous Carcinoma – Gallbladder

PATHOLOGICAL STAGE –pT2N0M0

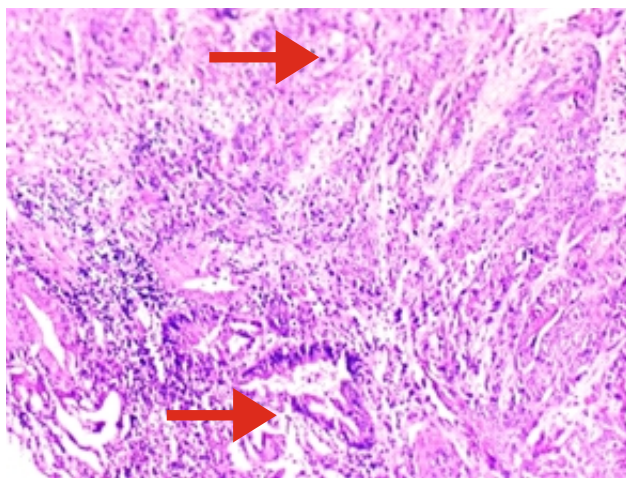


Fig. 5: Hematoxylin and Eosin stained section in low power (10x) showing focal gland formation (red arrow) lined by atypical cells and squamous part (blue arrow).

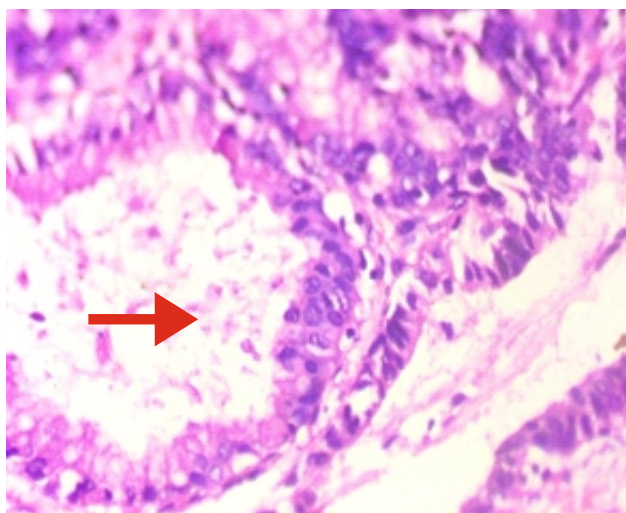


Fig. 6: Hematoxylin and Eosin stained cut section in high power(40x) showing focal gland formation (arrow) lined by atypical cells (Adenocarcinoma features).

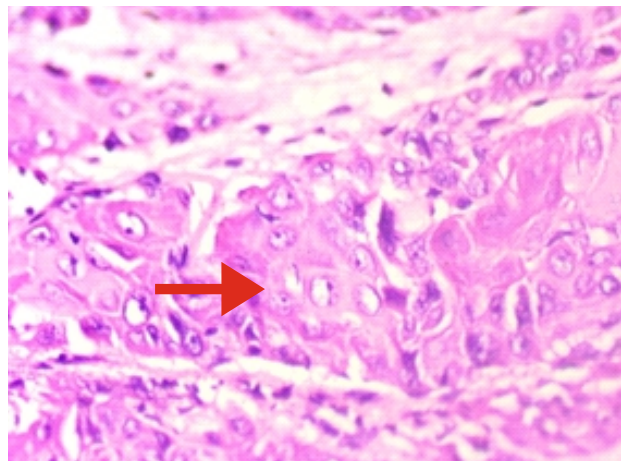


Fig. 7: Hematoxylin and Eosin stained section in high power (40x) showing atypical squamous cells (arrow).

DISCUSSION

Adenosquamous variant of gallbladder carcinoma is a much rarer subtype. This variant has demonstrated a more aggressive biological behavior than the most prevalent type of gallbladder cancer, which is adenocarcinoma. There are both squamous and malignant glandular components (the squamous component has to account for 25–99% of the tumor).

The increased proliferative ability causes tumors to spread to nearby organs like liver, duodenum, stomach, omentum and transverse colon.

The clinical features of gallbladder cancer include jaundice, anorexia, severe weight loss, and pain in abdomen in the right upper quadrant.

The various modalities which can be performed include-Ultrasound Abdomen, Computed tomography Abdomen to see operability, Liver Function Tests, Magnetic resonance cholangiopancreatography and Laparoscopy.

In present case, finding was incidental, the patient presented with pain in abdomen and Contrast enhanced computed tomography abdomen showed involvement of liver bed.

Many genetic anomalies, such as TP53 (found in over 50% of cases), CDKN2A (20%), and CTNNB1 (10%) (12), have been linked to gallbladder cancer. Microsatellite instability (MSI) is found in 10% of malignancies and ERB B2(HER2) amplifications in 16% of cases (13).

The tumor's histologic grade and stage are crucial prognostic markers. Since, the patient presents late, the prognosis is often poor. Chemotherapy has shown little success. The gold standard treatment is the surgical excision (3).

CONCLUSION

Adenosquamous carcinoma is the rare variant of gallbladder cancer. It has more aggressive biological behavior than adenocarcinoma gallbladder. It is an incidental finding. The most common site for metastasis is liver and other sites include stomach, omentum, duodenum and transverse colon. The prognosis is often poor. Chemotherapy has not been very effective. Gold standard treatment is the surgical excision. There is a dearth of existing research on this uncommon variant, further research is required to support a more focused therapeutic strategy.

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