Case report

Adenosquamous Carcinoma of Gallbladder: A Large Sized Tumor Rarely Compatible with Life

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Abstract

Adenosquamous carcinoma of gallbladder is a rare tumor accounting for only 0.5 -12.7 of all malignant gallbladder tumors. The poor prognosis of the adenosquamous variant is primarily due to the rapid but silent progression and hence it's late detection. We report a case of 24 year-old women with a 10 cm large polypoidal adenosquamous carcinoma of gallbladder, extending into the lumen and infiltrating the full thickness of wall but does not show any local spread to adjacent organ, regional lymph nodes or distant metastasis. The patient underwent radical cholecystectomy with resection of liver bed and is doing well 6 months post operatively, with no evidence of recurrence or distant metastasis.

Keywords: Adenosquamous carcinoma, Gallbladder malignancy, Radical cholecystectomy

Introduction

Gallbladder carcinoma is the fifth most common malignancy of gastrointestinal tract and accounts for 2-4 percent of the cases.[1] Of the various histological subtypes described, adenocarcinoma of gall bladder is the most common variant and accounts for 87 percent, while adenosquamous and pure squamous cell carcinoma are comparatively rare and is seen in 5.3-10.6 percent cases only.[2] Carcinoma of gallbladder with squamous histology is commonly seen among females between 4th and 6th decades of life, with a male/female ratio of 1:3.[3] Occurrence in third and fourth decades of life is very rare but have been reported in literature.[4] The biological behavior of the adenosquamous cell carcinoma of gall bladder is traditionally considered poor due to extensive local spread and distant metastasis.[5-6] The present paper emphasizes on localized invasiveness of a relatively large sized adenosquamous cell carcinoma of gall bladder in a young female with no evidence of metastases to liver and regional lymphnodes.

Case Report

A 24-year-old woman presented to the surgery out-patient department of our hospital with abdominal pain and loss of appetite for the last 6 months. On palpation, a well defined, firm, non tender, mass was felt in right hypochondrium. There was no history of fever, jaundice or any systemic illness. Ultrasonography of abdomen showed mild hepatomegaly (15.6 cm). Gallbladder was distended and filled with heterogenous lesion of size 8.7 x 3.5 cm noted at the neck and body of gallbladder. Gallbladder wall was intact and sludge was noted at the fundus. There was no evidence of Cholelithiasis or Choledocolithiasis. Color Doppler Flow

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Imaging of the lesion showed minimal vascularity,

On CT scan, a large polypoidal enhancing mass with irregular margins was seen arising from posterior wall of gallbladder. Planes with adjacent organs appeared normal. Few subcentimeric peri-portal lymph-nodes were also seen.

Intra-operatively gallbladder was distended and large. Dense adhesions were present around the gallbladder. Periportal and supraduodenal lymph-nodes were present hence Radical Cholecystectomy was performed with resection of liver bed. The specimen was sent for histopathology examination.

On gross examination, the excised gall bladder with attached liver bed measured 10x4x4 cm in size. External surface of gallbladder shows focal areas of hemorrhage. On cut section, lumen was distended and completely filled with a tumor measuring 9.0 x 3.5 cm. Cut surface of the tumor was grey brown, soft to firm in consistency with focal areas of hemorrhage and necrosis. Thickening of the wall was identified at the body and neck of gallbladder measuring 1.3 cm in maximum diameter. No calculi identified in the lumen.

Microscopic examination of the tumor showed a malignant epithelial neoplasm disposed in solid nests, sheets and glandular pattern. Squamoid cells in solid nests were oval to polygonal having high nuclear-cytoplasmic ratio, inconspicuous nucleoli and a moderate amount of eosinophilic cytoplasm. Cells show intracytoplasmic keratinization with areas of keratin whorls formation. The cells arranged in glands were columnar with high nuclear-cytoplasmic ratio, hyperchromatic nuclei and minimal eosinophilic cytoplasm. Tumor cells were reaching upto the serosa. No infiltration was seen in the liver and in the surrounding lymph-nodes. These findings were suggestive of adeno-squamous carcinoma of gallbladder with TNM stage T2N0M0.

Post-operative stay of the patient in hospital was uneventful. Patient was discharged with an advice of monthly follow-up. Chemotherapy with Gemcitabine plus Cisplatin has been planned if patient will present with recurrence or any signs of distant metastasis. However, for last six months patient is doing well with no signs of poor prognosis.

Discussion

Patients with adenosquamous carcinoma of the gallbladder usually presents in advanced stage with a large sized tumor and a higher tendency to infiltrate locally.[2,7,8] Nishihara et al. demonstrated that the squamous component of adenosquamous carcinoma of the gallbladder has a greater proliferative capacity compared with the glandular component.[2,9] This explains the frequency of bulky tumor and adjacent organ involvement in patients with adenosquamous carcinoma of the gallbladder. Willcox and Chang, Mizushima et al., and Suganuma et al. all reported that the primary spread of squamous cell carcinoma of the gallbladder was by direct extension with fewer metastases to the regional lymph nodes or distant organs.[10-12] The strong intercellular bridging between the squamous cells restricts the metastatic potential of this rare tumor subtype compared to the more commonly occurring adenocarcinomas which have high tendency to metastasize to regional lymph nodes. In this context, theoretically, adenosquamous

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and squamous cell carcinoma of the gallbladder appears more suitable for resection than adenocarcinoma. However, the high local invasiveness of this tumor and the advanced stages at the time of initial diagnosis often preclude the performance of resection.[13] This may be the reason why the prognosis for patients with adenosquamous and squamous cell carcinoma of the gallbladder is poorer compared with the prognosis for patients with adenocarcinoma. However, favorable prognostic markers include early detection of the tumor localized within the gall bladder, young age of the patient, squamous histology, and uninvolved regional lymph nodes. In our hospital, the protocol followed for treating patients with gallbladder carcinoma has been aggressive irrespective of the histological type. Most patients underwent radical resection with resection of the adjacent organ. The better outcome after patients underwent radical resection in this case suggests that this procedure is efficacious for patients with adenosquamous carcinoma of the gallbladder.

Figure 1: Computerized Tomography scan showing distended gall bladder, with presence of a poorly circumscribed heterogeneous soft tissue attenuation intraluminal mass.

Figure 2: Opened up specimen of gall bladder showing polypoidal mass measuring 9.0 x 3.5 cm. Cut section of tumor is solid, obliterating the lumen, with central areas of friable white necrotic material.

Figure 3: Photomicrograph showing luminal surface area with predominantly malignant squamous differentiation and few areas showing malignant glandular feature (H&E 40x).

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