



A RARE CASE OF ADENOSQUAMOUS CARCINOMA OF THE GALLBLADDER: CLINICAL INSIGHTS AND OUTCOMES

Hepatobiliary Surgery

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ABSTRACT

Adenosquamous carcinoma of the gallbladder (ASCGB) is a rare and aggressive malignancy, accounting for only 1%–5% of all gallbladder cancers. We present a case of a 64-year-old male who presented with right upper quadrant abdominal pain, weight loss, and loss of appetite. Imaging studies revealed gallbladder thickening with lymphadenopathy, raising suspicion for malignancy. Staging laparoscopy followed by radical cholecystectomy confirmed ASCGB on histopathology. The patient received adjuvant chemotherapy with capecitabine for eight cycles and remained disease-free at six-month follow-up. This case highlights the diagnostic challenges and the importance of a multidisciplinary approach in managing this rare entity.

KEYWORDS

Adenosquamous carcinoma of the gallbladder (ASCGB), CA-19.9, Radical cholecystectomy.

INTRODUCTION

Adenocarcinoma of the gallbladder is the most prevalent histological type, representing about 90% to 95% of cases, and has been extensively researched.¹ In contrast, adenosquamous and pure squamous cell carcinomas of the gallbladder are quite rare, making up 1% to 5% of all gallbladder cancers.^{1,2} Due to its rarity, there is limited data on the clinicopathological characteristics, and a consistent histological definition is lacking. Most studies classify any instance of squamous differentiation alongwith glandular features as the adenosquamous carcinoma of the gallbladder (ASCGB) subtype.³ Current literature suggests that ASCGB is associated to larger tumor size, worse survival rates, more aggressive behavior, and often presents as locally advanced.⁴

Case Report

We report a case of 64-year-old male businessman with hypertension and diabetes mellitus from an upper-middle socioeconomic background presented with two days complaints of right upper abdominal pain. The pain was moderate in intensity, continuous, dull aching and radiated to the right shoulder and partially responded to intravenous analgesics. It was associated with one episode of non-bilious vomiting and a single spike of low-grade fever. He also had history of loss of appetite and unintentional weight loss for one month.

Examination revealed a soft abdomen with mild tenderness in the right upper quadrant. There were no mass palpable palpable or lymphadenopathy.

On investigation, Ultrasound abdomen showed distended gall bladder with multiple luminal calculi with diffusely oedematous wall of 4 mm thickness without any pericholecystic fluid.

There was no leukocytosis or neutrophilia but there was raised alkaline phosphatase (ALP) and gamma glutamyl transferase (GGT) more than two times of upper normal limit.

Tumour markers study was done in view decreased appetite and unintentional weight loss which were raised CEA (7.9 ng/ml) and CA-19.9(256 U/ml)



Triple phase CT abdomen was done to rule out malignant gall bladder pathology which showed diffuse circumferential irregular two-layer thickening of the gall bladder, with inner thin weakly enhancing wall and outer hypo enhancing wall – suggestive of type 5 enhancement pattern with maintained fat planes with adjacent segment V of liver. Few heterogeneously enhancing periportal lymph nodes. The liver is normal in size and no focal abnormality seen.

In view of raised tumour marker patient underwent staging laparoscopy which grossly showed no wall thickening of gall bladder hence underwent cholecystectomy with frozen biopsy which showed features of adenocarcinoma with tumour free cystic duct margin. So in the same setting open completion radical cholecystectomy was performed. A drain was kept which was removed on post operative day four and patient discharged on post-operative day seven.

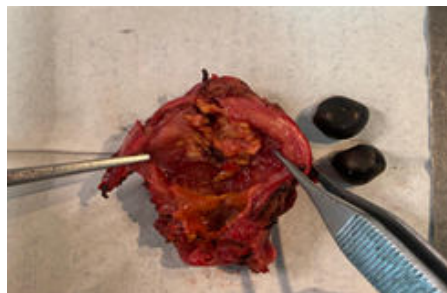


Figure 2. specimen showing - 2.5x2x1.6 cm intraluminal ulceroproliferative growth

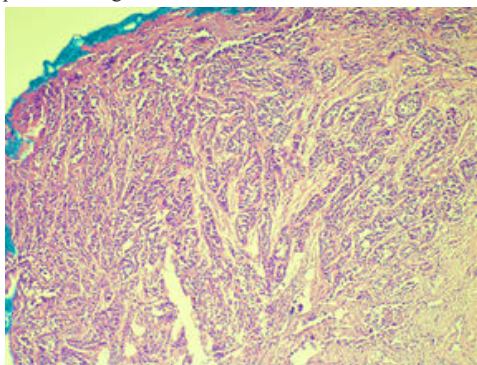


Figure 3. Microscopic examination showed clusters of malignant cells with squamous features. Additionally, there were areas of well-differentiated malignant glands, and the overall findings are consistent with an adenosquamous carcinoma.

Multidisciplinary team discussion was done and received oral capecitabine for eight cycles. Apart from mild chemotherapy induced nausea he tolerated well the adjuvant chemo regime. A six months surveillance staging scan did not demonstrate any disease recurrence.

DISCUSSION

Adenosquamous carcinoma (ASC) of the gallbladder is an exceptionally rare malignancy, accounting for only 1-5% of all gallbladder carcinomas. This subtype is characterized by the presence of both glandular and squamous components, with the squamous element often exhibiting a more aggressive biological behavior.¹ The rarity of this cancer presents significant challenges in diagnosis, treatment, and management, necessitating a comprehensive understanding of its clinical features and therapeutic options.

Patients with adenosquamous carcinoma typically present with non-specific symptoms, often leading to late-stage diagnosis. Common presentations include abdominal pain, weight loss, and jaundice, which may be mistaken for other gastrointestinal disorders. Imaging studies, such as ultrasound and CT scans, are crucial for identifying gallbladder masses, but definitive diagnosis often relies on histopathological examination. The histological classification of ASC remains controversial, with varying definitions regarding the proportion of squamous differentiation required for diagnosis.¹

The prognosis for patients with adenosquamous carcinoma is generally poor, with an overall five-year survival rate estimated to be less than 5%.¹ Factors influencing survival include tumor stage at diagnosis, histological grade, and the presence of lymph node involvement. Studies indicate that a significant proportion of patients present with advanced disease, often classified as AJCC Stage III or IV, which correlates with a dismal prognosis.⁵

Surgical resection remains the cornerstone of treatment for localized adenosquamous carcinoma. Radical cholecystectomy, often accompanied by liver resection and lymphadenectomy, is the preferred approach.^{5,6} However, the aggressive nature of this carcinoma frequently results in local invasion and metastasis, complicating surgical outcomes.⁶

Adjuvant chemotherapy has been explored, but its efficacy remains uncertain due to the limited number of studies specifically targeting ASC.⁶ Current treatment regimens often include combinations of gemcitabine and cisplatin, which have shown some promise in improving survival rates in advanced cases.⁶ However, the response to chemotherapy can be variable, and many patients experience significant side effects, leading to treatment discontinuation.

The management of adenosquamous carcinoma is fraught with challenges due to its rarity and the lack of standardized treatment protocols. The absence of large-scale clinical trials limits the availability of evidence-based guidelines, necessitating a multidisciplinary approach to patient care.⁷ Furthermore, the aggressive nature of this malignancy often results in rapid disease progression, underscoring the need for timely intervention.^{1,7}

CONCLUSION

Adenosquamous carcinoma of the gallbladder represents a rare and aggressive malignancy with a poor prognosis. The complexity of its clinical presentation, coupled with the challenges in diagnosis and treatment, necessitates a thorough understanding of its characteristics. Future research should focus on elucidating the molecular mechanisms underlying this carcinoma, improving diagnostic criteria, and developing targeted therapies to enhance patient outcomes. Collaborative efforts among oncologists, pathologists, and surgeons are essential to optimize management strategies and improve survival rates for patients afflicted with this rare entity.

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