

Adenosquamous carcinoma of gallbladder presenting as chronic cholecystitis with cholelithiasis- a rare entity

Nitesh Mohan^{1,*}, Ranjan Agrawal², Parbodh Kumar³

^{1,2}Professor, ³Professor & HOD, Dept. of Pathology, Rohilkhand Medical College & Hospital, Bareilly, Uttar Pradesh

***Corresponding Author:**

Email: drnitesh@gmail.com

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), a rare subtype of gallbladder cancer, accounts for 1.4-10.6% of all carcinoma incidences. ASCs have aggressive biological behavior due to their potential for direct extension into the liver and neighboring structures like stomach, duodenum, and transverse colon but lacks metastasis in lymph nodes or viscera. ASC of the gallbladder lacks specific clinical presentation until the tumor has grown substantially large in size, and the carcinoma is at advanced stages. Patient complains generally of pain right hypochondrium. At times, they may present rarely as cholecystitis. We report here a case of an adenosquamous carcinoma of the gallbladder in a 45-year-old female presenting unusually as chronic cholecystitis with cholelithiasis.

Keywords: Adenosquamous, Carcinoma, Gallbladder, Cholecystitis.

Introduction

Adenocarcinomas account for more than 90% of gallbladder cancers, which in turn are the most common malignancy of the biliary tract.⁽¹⁾ Squamous differentiation is seen in 5-7% of the lesions, while the incidence of adenosquamous carcinomas (ASCs), a rare subtype of gallbladder cancer, accounts for only 1.4-10.6% of all incidences.^(1,2)

ASCs have aggressive biological behavior due to their potential for direct extension into the adjacent viscera like liver, stomach, duodenum, and transverse colon, but lacks metastasis in lymph nodes. ASC of the gallbladder lacks specific presentations in signs and symptoms until the tumor has grown substantially and the carcinoma is at advanced stages.⁽³⁾

Case History

A 45-year-old female patient presented with complaints of generalized abdominal pain since last 8 months. The pain was dull aching, intermittent, and non-radiating type. Pain was relieved by taking medicines. Pain was associated with low-grade fever, breathlessness and mild constipation. On clinical examination, there was tenderness in right hypochondrium along with mild generalized distention of the abdomen. Bowel sounds were sluggish. No signs of peritonitis were evident. Routine biochemical and haematological examinations were within normal limits.

Ultrasonography of abdomen showed mildly distended bowel loops with thickening of gallbladder wall and multiple gallstones within the lumen. Based on the clinical signs and symptoms, in conjunction with investigations, a provisional diagnosis of chronic cholecystitis with cholelithiasis was made. Patient was

subjected to laparoscopic cholecystectomy and gallbladder was removed and sent for HPE.

HPE: A specimen of gallbladder was received in histopathology section measuring 9.5x5.5x3.5cms. The outer surface was rough and non-ulcerated. On cut section, the wall of the gallbladder appeared thickened and showed a diffuse growth arising from the mucosa and obliterating the lumen completely, accompanied by multiple gallstones. The growth was grey-white to grey-brown in colour (Fig. 1). Microscopy of the lesion showed tumour cells arranged in sheets and clusters of variable sizes. Individual cells had large pleomorphic nuclei with prominent nucleoli. Evidence of intracellular keratin was seen along with formation of keratin pearls. Also seen were neoplastic mucosal glands invading upto and beyond the muscle layer (Fig. 2 a, b). Atypical mitosis was present. Evidence of lymphovascular invasion was seen. These findings were suggestive of Adenosquamous carcinoma of Gallbladder with Cholelithiasis. Immunohistochemistry showed positivity for PanCK, CEA and Ki67 showed moderate positivity (Fig. 3 a, b, c).



Fig. 1: Cut surface of gallbladder showing thickened walls with a growth

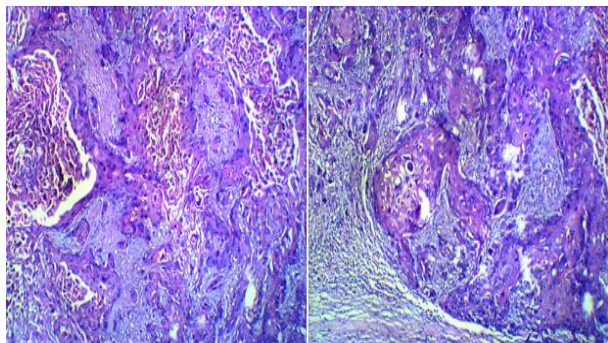


Fig. 2 a: Microphotograph showing malignant squamous component (H&E 100x)

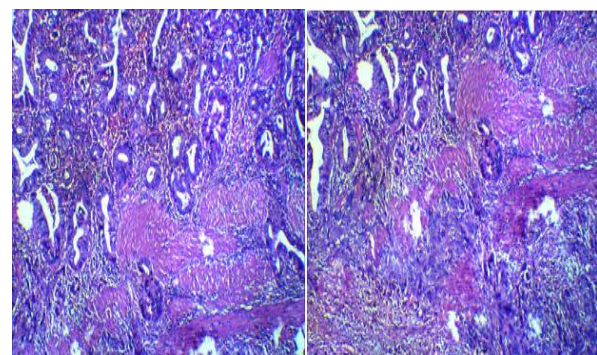


Fig. 2 b: Microphotograph showing malignant glandular component (H&E 100x)

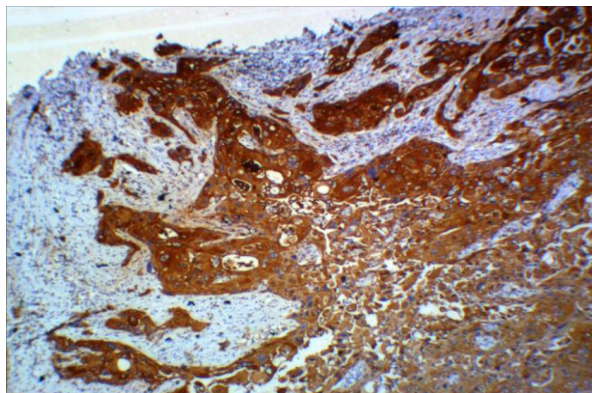


Fig. 3a: IHC showing CK Positivity

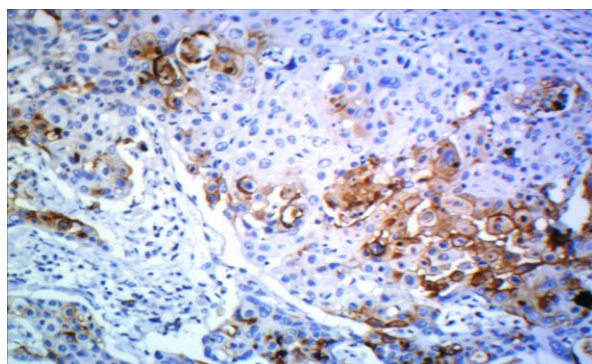


Fig. 3.b: IHC showing CEA Positivity

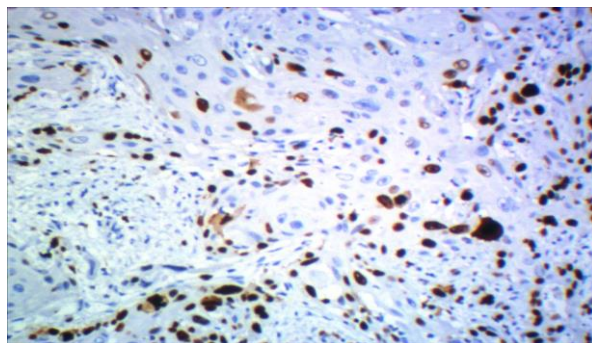


Fig. 3 c: IHC showing Ki67 Positivity

Discussion

Adenocarcinomas of gallbladder may exhibit varying degrees of squamous metaplasia. These have been termed as adenoacanthoma and adenosquamous carcinoma depending on the differentiation of the squamous component, by different authors.^(3,4,5) Pure squamous cell carcinomas of gallbladder are a rare entity, and adenosquamous are even rarer. Most studies accept that squamous cells originate from pre-existing metaplastic squamous epithelium. Others are in a view that they originate from squamous differentiation of adenocarcinoma cells. Whatever the origin, adenosquamous carcinoma has an invasive growth pattern with little tendency for lymph node metastasis.⁽⁵⁾ Such tumors tend to grow laterally along the gallbladder fossa, and so present late with clinical signs and symptoms. Symptoms are generalized, and thus confused with cholecystitis and cholelithiasis.^(3,5) There has been no correlation found between cholelithiasis and adenosquamous carcinomas, apart from its role in progression of the disease.⁽⁶⁾ Our case showed gallstones within the lumen of gallbladder, which was a major reason for missing the provisional diagnosis, even on ultrasonography. Thus, it should be stressed on the fact that all resected specimens should undergo histopathological examination.

Conclusion

The extent of the tumor at the time of diagnosis is most important parameter in determining survival of the patient. Early diagnosis is utmost important for improving survival indices among patients of adenosquamous cell carcinoma gallbladder. Clinical history may be misleading at times.

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