Saudi Journal of Pathology and Microbiology
Scholars Middle East Publishers
Dubai, United Arab Emirates
Website: http://scholarsmepub.com/

ISSN 2518-3362 (Print)
ISSN 2518-3370 (Online)

Primary Pure Squamous Cell Carcinoma of Gallbladder Presenting as Chronic Cholecystitis: A Rare Case Report

Monal Trisal[1], Shaan Khetrapal[2], Nehal Ahmad[3], Sujata Jetley[4], Zeeba S Jairajpuri[5]
[1]Demonstrator, [2,3]Assistant Professor, [4]HOD and Professor, [5]Associate Professor, Department of Pathology and Transfusion Medicine, Hamdard Institute of Medical Sciences and Research, Jamia Hamdard, New Delhi, India

***Corresponding author**
Zeeba S Jairajpuri

Article History
Received: 28.08.2017
Accepted: 05.09.2017
Published: 30.09.2017

DOI:
10.21276/sjpm.2017.2.8.4

Abstract: Primary Squamous cell carcinoma of the gallbladder is extremely rare and constitutes 0.5- 3% of all gall bladder malignancies. We report a 50-year-old female who presented with vague symptom of right upper quadrant pain. She was operated on a presumptive diagnosis of chronic cholecystitis according to clinical and ultrasonography findings. Histopathological examination showed an infiltrating mass of the gallbladder which revealed well differentiated keratinized squamous cell carcinoma invading full wall thickness. Thorough evaluation revealed no other primary site for the tumor. Pure primary squamous cell carcinoma of the gallbladder is very rarely reported. Clinicians must be aware of its vague clinical presentations.
Keywords: Gallbladder Carcinoma, Squamous Cell Carcinoma, Chronic Cholecystitis

INTRODUCTION

Gallbladder Carcinoma is more common in females than in males and usually seen in patients above 50 years of age. It is more common in white population than the black and in western countries than the Mediterranean. The relation between gallstone and gallbladder carcinoma remains controversial. Adenocarcinoma is the most common malignant carcinoma of the gallbladder [1]. Although areas of squamous differentiation is seen in adenocarcinoma, pure primary squamous cell carcinoma is extremely rare with reported incidence of 3.3% of all gallbladder malignancies. The histogenesis of squamous cell carcinoma of the gallbladder has not been well understood [2]. Some researchers have stated that squamous cell carcinoma originates from pre-existing squamous metaplasia of the gallbladder epithelium, while others that it originates from squamous differentiation of neoplastic cells of adenocarcinoma [3].

CASE REPORT

A 50-years-old lady presented with right upper quadrant abdominal pain, generalized weakness, loss of appetite and recurrent episodes of vomiting since 10-15 days. Her pulse rate and blood pressure were 100 /min and 150/90 mmHg respectively. The abdomen was tender but there was no physical sign of peritonitis. Examination of respiratory and cardiovascular system were unremarkable. Abdominal ultrasonography showed distended gall bladder with few intraluminal calculi, largest measuring 15.2mm. CBD was not dilated. With the presumptive diagnosis of chronic cholecystitis with cholelithiasis, the patient received supportive care and antibiotics. However, she finally underwent laproscopic cholecystectomy. Per-operatively, the gall bladder showed thickened wall containing large calculus within the lumen. Dense adhesions between gall bladder, omentum and stomach was seen. Moderate ascites was also present.

Gross examination revealed a distorted specimen of gall bladder measuring 5x4.5x4.2cm. On serial sectioning, irregular grey white area seen on the mucosal surface measuring 5x4cm infiltrating deep upto the wall almost reaching upto the serosal surface (Figure 1). Grey white area thickness was 1.4cm. Wall thickness varied from 0.8 to 1.7cm. No lymph nodes were identified.

Fig-1: Gross appearance of the distorted gall bladder showing infiltrative growth infiltrating upto the serosal surface

On microscopy, sections showed denuded mucosal lining with infiltration by invasive nests and cords of atypical squamous cells extending into muscular propria reaching upto the serosa (Figure 2,3). The cells were moderately pleomorphic, polygonal with round to oval nuclei, eosinophilic cytoplasm and prominent nucleoli, some exhibiting intracellular keratinization. Areas of hemorrhage, dense lymphocytic infiltration and large areas of necrosis were also seen. Brisk mitosis was seen. Cut end also showed infiltration by tumor. No lymph node or liver tissue was submitted for pathological examination. Histomorphological features were compatible with Invasive Squamous Cell Carcinoma of the Gall bladder.

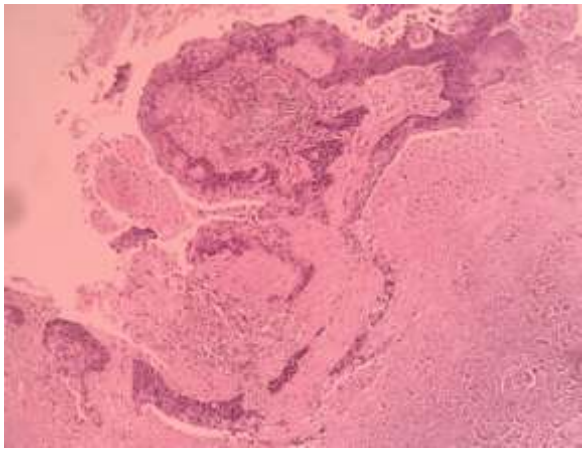

Fig-2: Photomicrograph showing denuded mucosal lining with infiltration by invasive nests and cords of atypical squamous cells (H&E×10)

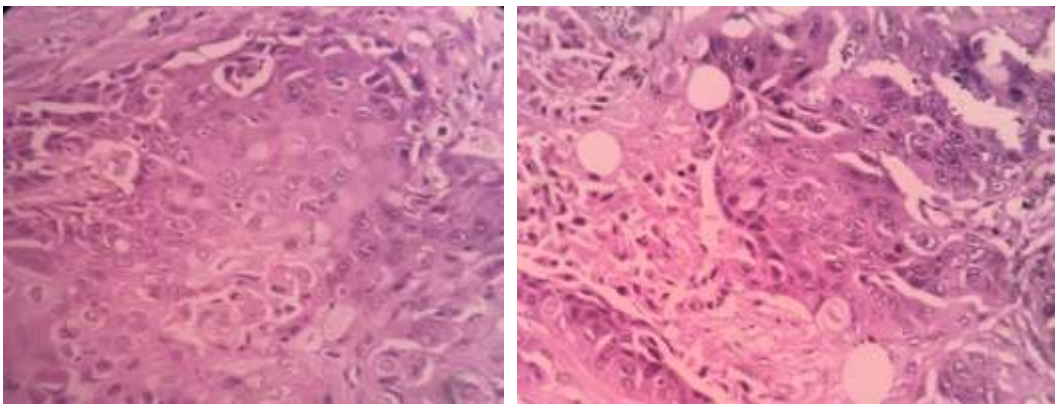

Fig-3: Photomicrograph shows nests and sheets of well differentiated keratinized squamous cell carcinoma invading through the wall of the gallbladder (H&E×40)

DISCUSSION

Adenocarcinoma is the most common of all gallbladder carcinoma constituting nearly 90-95% of the cases. Although areas of squamous differentiation are seen in some reported cases, pure primary squamous cell carcinoma of the gallbladder is extremely rare [1]. It is important to differentiate adenocarcinoma with squamous differentiation from pure squamous cell carcinoma because of the better long term prognosis of the former. Biological behavior of squamous cell cancer is aggressive and characterized by rapid growth, early metastatic dissemination and diffusely local and regional metastasis [4]. The etiology and pathogenesis of squamous cell carcinoma is unclear but two presumptive causative possibilities are gallstones and parasitic infestation. Another possibility for pathogenesis of squamous cell carcinoma is the metaplasia-dysplasia-carcinoma sequence [5]. Most of the cases with squamous cell carcinoma present as atypical squamous epithelial change adjacent to the invasive tumor. Gallbladder carcinomas are asymptomatic at early stages. When symptomatic, the presentation is similar to biliary colic or chronic cholecystitis. Persistent right upper quadrant or epigastric pain is the commonest symptom. Other symptoms are jaundice, nausea, vomiting, anorexia or a palpable mass. Since the signs and symptoms of gall bladder carcinoma are very vague and non-specific it is very difficult to diagnose it clinically. Hence, if signs of biliary colic or chronic cholecystitis are present in an elderly patient in combination with weight loss and anorexia, gall bladder carcinoma should be always considered as a differential. In our case, there was evidence of squamous epithelial differentiation solely, characterized by keratinization and intercellular bridge formation without any glandular formation or mucin production. Squamous cell carcinoma of the gallbladder characteristically presents as invasive growth grows laterally along the fossa of the gallbladder forming large infiltrative masses that typically invade the liver and adjacent organs by direct expansion posing a worse prognosis than adenocarcinoma of the gallbladder [4]. However in our case, lymph node and hepatic status couldn't be accessed for pathological examination. Radical resection is the mainstay of treatment for patients with locally invasive squamous cell carcinoma and offers the only chance for cure. The extent of tumor invasion at the time of diagnosis is the most important parameter in determining survival. Death occurs within six months of diagnosis without radical surgery. Adjuvant postoperative radiotherapy and chemotherapy can be used, although the outcomes are only palliative [7]. Patients who develop squamous cell carcinoma of the gall-bladder have a poorer long-term prognosis than patients presenting with adenocarcinoma of the gallbladder [8].

CONCLUSION

Pure primary squamous cell carcinoma of the gallbladder is rarely reported. Clinicians and pathologists must be aware of its vague clinical presentations. Radical resection is the mainstay of treatment for locally invasive squamous cell carcinoma and offers a chance of cure. It is important to differentiate adenocarcinoma with squamous differentiation from pure squamous cell carcinoma because of the better prognosis of the latter.

REFERENCES

1. Roa, J. C., Tapia, O., Cakir, A., Basturk, O., Dursun, N., Akdemir, D., ... & Adsay, N. V. (2011). Squamous cell and adenosquamous carcinomas of the gallbladder: clinicopathological analysis of 34 cases identified in 606 carcinomas. *Modern Pathology*, *24*(8), 1069.
2. Rekik, W., Fadhel, C. B., Boufaroua, A. L., Mestiri, H., Khalfallah, M. T., Bouraoui, S., & Mzabi-Rgaya, S. (2011). Case report: Primary pure squamous cell carcinoma of the gallbladder. *Journal of visceral surgery*, *148*(2), e149-e151.
3. Roppongi, T., Takeyoshi, I., Ohwada, S., Sato, Y., Fujii, T., Honma, M., & Morishita, Y. (2000). Minute squamous cell carcinoma of the gallbladder: a case report. *Japanese journal of clinical oncology*, *30*(1), 43-45.
4. Karasawa, T., Itoh, K., Komukai, M., Ozawa, U., Sakurai, I., & Shikata, T. (1981). Squamous cell carcinoma of gallbladder, report of two cases and review of literature. *Acta Pathol Jpn*, *31*, 299–308.
5. Gupta, S., Gupta, S. K., & Aryya, N. C. (2004). Primary squamous cell carcinoma of gallbladder presenting as acute cholecystitis. *Indian J Pathol Microbiol*, *47*, 231–3.
6. D'Angelica, M., & Jarnagin, W. (2006). Tumors of the Gall- bladder, In B. L. Saunders, Ed., Surgery of the Liver, Biliary Tract, and Pancreas, 4th Edition, Elsevier, Amsterdam,764-81.
7. Sharique, N., Muhammad, R., Ibrahim, J., Jaques, D. (2012). Primary Squamous cell carcinoma of the gall bladder. Case report. *Surgical Science*, *3*, 418-20.
8. Waisberg, J., Bromberg, S. H., Franco, M. I. F., Yamagushi, N., Santos, P. A. D., & Castro, M. A. P. (2001). Squamous cell carcinoma of the gallbladder. *Sao Paulo Medical Journal*, *119*(1), 43-43.