

A Case of Pure Endophytic Squamous Cell Carcinoma of the Gallbladder: A Rare Entity with Aggressive Behaviour

Safra Kesesinin Saf Endofitik Skuamöz Hücreli Karsinomu: Agresif Davranışlı Nadir Bir Tümör

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ABSTRACT

Pure squamous cell carcinoma of gallbladder is a rare tumor accounting for only 3% of the malignancies of gallbladder. A 35-year-old female presented with pain and lump in right hypochondrium. Ultrasonography and computed tomography revealed a thickened gallbladder filled with stones without any obvious growth and a large hepatic mass. Histologically, a pure type of well differentiated squamous cell carcinoma of gallbladder was diagnosed after excluding all possible differential diagnoses owing to different histogenesis and aggressive biological behaviour. Early diagnosis is the most important parameter for improving the survival indices among the patients with squamous cell carcinoma of the gallbladder.

Key Words: Squamous cell carcinoma, Gallbladder, Differential diagnosis

ÖZ

Safra kesesinin saf skuamöz hücreli karsinomu nadirdir ve safra kesesi kanserlerinin %3'ünü oluşturur. 35 yaşında bir kadın, sağ hipokondriumda ağrı ve şişlik şikayeti ile başvurdu. Ultrasonografi ve bilgisayarlı tomografide safra kesesinin taşla dolu ve duvarında kalınlaşma olduğu ve karaciğerde büyük bir kitle saptandı. Histolojik incelemede, farklı histogenez ve kötü biyolojik davranışı nedeniyle tüm ayırıcı tanı olasılıkları ekarte edildikten sonra safra kesesinin saf iyi diferansiye skuamöz hücreli karsinom tanısına ulaşıldı. Safra kesesinin skuamöz hücreli karsinomunda yaşam süresini uzatmada en önemli faktör erken tanıdır.

Anahtar Sözcükler: Skuamöz hücreli karsinom, Safra kesesi, Ayırıcı tanı

INTRODUCTION

The most common type of gallbladder cancer is adenocarcinoma. Pure squamous cell carcinoma (SCC) of gallbladder is a rare tumor and is responsible for only 3% of the malignant neoplasms of this organ (1,2). Carcinoma of the gallbladder is rarely discovered at a resectable stage, and the mean 5-year survival has remained for many years at about 1%, despite surgical intervention. (3). Since only a few articles are available on the occurrence of pure squamous cell carcinoma of gallbladder, here we report a rare case of a well differentiated squamous cell carcinoma of gallbladder with inclusion of brief review of literature. Diagnosis of primary SCC was made after excluding other possible differential diagnoses.

CASE REPORT

A 35 year old female presented with pain in right hypochondrium for 3 months. On examination a lump of 9x4 cm was palpated in right hypochondrium in

midclavicular line which was firm, mobile with irregular surface but having well defined margins.

Ultrasonography and computed tomography revealed an enlarged gallbladder (8.5x5.5x4.5cm) with thickened wall (maximum wall thickness 8.2 mm), and cavity full of sludge and stones along with a large and solid hepatic mass (8x6.5cm), in right lobe of liver adjacent to gallbladder (Figure 1, 2). No exophytic growth was seen. No lymph node or free fluid was seen. Whole body scan was normal.

At exploration omentum was oedematous, thickened and stuck to the under surface of right lobe of liver. There were surrounding adhesions with stomach, transverse colon and duodenum. On palpation of the liver, a lump was felt in the right lobe of the liver, left lobe was normal. The enlarged gallbladder was found adherent to the liver base. Cholecystectomy and segmental wedge resection was performed enbloc. Serosal and omental deposits were excised in pieces. No enlarged lymph nodes were detected. Lymph nodes around porta hepatis were resected.

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Gross morphology showed an enlarged gallbladder (8.4x5.5x4 cms) with adherent resected liver tissue measuring 7.4x5x4 cms. On opening gallbladder wall was irregularly thickened with maximum wall thickness of 8.5 mm, having focally ulcerated and atrophic mucosa. No exophytic growth was seen, however the serosa was tightly adherent to liver tissue. Multiple multifaceted pigmented stones and thick sludge was present inside the gallbladder. Microscopy showed complete replacement of the gallbladder mucosa by cords or sheets of malignant keratinized squamous cells separated by a fibrous stroma. (Figure 3, 4) Prominent keratinization with keratin pearl formation and intercellular bridges were seen. Tumor invaded the serosa. The gallbladder margins were invaded by tumor cells, while liver resection margins were free. After

extensive search no component of adenocarcinoma could be found in any of the sections nor any metaplastic foci or dysplastic foci were found in involved as well as uninvolved areas. Liver, omental and serosal sections also exhibited carcinoma deposits. Resected lymph nodes were negative for carcinoma infiltrate. PAS and Alcian blue staining performed on all sections were negative. The diagnosis of pure squamous cell carcinoma was made after excluding the other possibilities.

DISCUSSION

The incidence of squamous cell carcinoma ranges from 0 to 12.7% of all cases of gallbladder cancer (1). The wide variation of the reported occurrence is probably due to the fact that in many of the series, adenosquamous carcinoma or



Figure 1: Ultrasonography of the gallbladder showing an enlarged gallbladder and a liver mass.

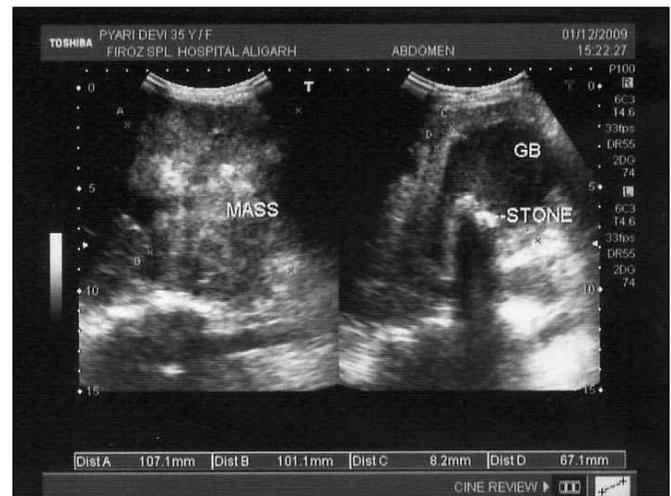


Figure 2: Ultrasonography of the gallbladder exhibiting thickened gallbladder wall, multiple stones and a right liver mass.

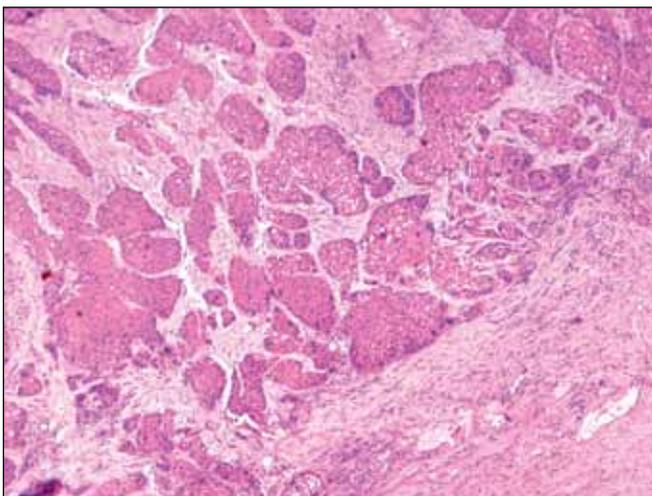


Figure 3: Section showing diffuse growth replacing the mucosa and invading the muscularis propria (H&E, x100).

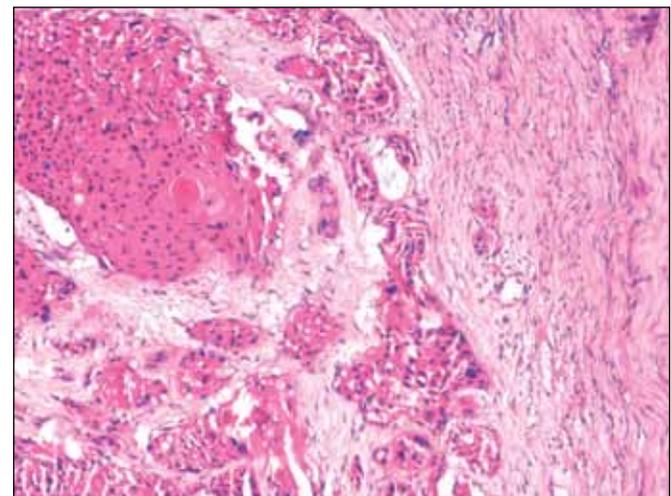


Figure 4: Section showing squamous cell carcinoma with keratin pearl formation (H&E, x400).

mucoepidermoid carcinoma and secondary SCC from other sites were also included as squamous carcinomas or in other series a poorly differentiated adenocarcinoma or anaplastic carcinoma was misdiagnosed as squamous carcinoma (1, 4).

Excluding such cases, the incidence of pure squamous cell carcinoma of gallbladder is just 0–3.3% (4-7).

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 as described by other authors (4, 8). Furthermore, mucin stains helped in differentiating squamous cell carcinoma from adenocarcinoma.

Squamous cell carcinoma of the gallbladder characteristically presents as invasive growth and a low tendency towards lymph node metastasis posing a worse prognosis than adenocarcinoma of the gallbladder (1, 2). In our case, also the gallbladder showed local adherence and hepatic metastases without any lymph node metastasis on radiological imaging, intraoperatively as well as histopathologically.

Squamous cell carcinoma of gallbladder is predominantly seen among females between 4th and 6th decades of life, with a male/female ratio of 1:3. (1, 2). The most significant symptom is pain, which occurs in 66% of patients (9). Other patients may present with a right hypochondrial mass or jaundice. However at times it may be clinically occult or may mimic an empyema of gallbladder (8, 9).

Regarding the etiology of squamous cell carcinoma of the gallbladder, various hypotheses have been proposed including; 1) malignant transformation of heterotopic squamous epithelium, 2) malignant transformation of metaplastic squamous epithelium, 3) squamous metaplasia of adenocarcinoma (1,2,8).

Squamous cell carcinomas behave aggressively. The extent of tumor at the time of diagnosis is the most important parameter in determining survival. Review shows that only 7% with serosal involvement are alive at 5 years. Extension to subserosa with positive resection margin is associated with 43% one year survival at 3 years (1, 9). The surgical options available depend mainly on the local and regional involvement and consist of cholecystectomy with resection of wedge of adjacent liver tissue. Resection of the organs

involved as part of the radical operation is justified in cases of localized lesion, without metastasis and peritoneal dissemination. Adjuvant postoperative chemotherapy and radiotherapy may be used, although their results are inconsistent and only palliative (1,2). Early diagnosis is the most important parameter for improving the survival indices among the patients with SCC of the gallbladder. Therefore it is highly recommended to examine thoroughly the gallbladder as a whole removed during surgical, endoscopic or laparoscopic procedures in all symptomatic patients to ensure complete examination in order to detect early SCC of the gallbladder.

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