Squamous cell carcinoma of the gallbladder. A case report

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Case Report

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Background: Gallbladder cancer accounts for a total of 1% of cancers in the world, Globocan mentions an incidence of 115000 [Figure 1], new cases per year, with a mortality of 0.8% of all cancers in the world. Its histological lineage adenocarcinoma and epidermoid encompass more than 95% of the histological lineage, however squamous cell carcinoma is a rare entity, there is still not enough scientific evidence of the incidence, it is estimated 1-3% of the subtypes of gallbladder cancer, and it is secondary keratin beads that present a predominant keratinization, with probable malignant glandular transformation. Diagnosis is a challenge, risk factors must be considered, TNM staging, and finally surgical management is the only curative treatment and the cost of radical or extended cholecystectomy, associated with chemotherapy and radiotherapy. Survival and follow-up in these patients are important. In this case we are dealing with a 48-year-old patient with a post-surgical diagnosis of squamous cell carcinoma of the gallbladder, a rare and poorly reported entity.

Keywords: Gallbladder cancer.

Gallbladder cancer is grouped as biliary tract cancer and corresponds to less than 1% of cancer in total population, the incidence is dispersed USA present (0.3-0.5 / 100000 cases), however this increases for the population of China-Korea-Indonesia presenting (40-85/100000 cases). In Mexico 1.1/100 000 cases in men and 2.4/100 000 cases in women. Globocan 2020 [1] indicates each year approximately 115,000 new cases, presenting 0.6% of incidence in all cancers worldwide, presenting a mortality of 0.8%.

According to the lineage or histological characteristic 70-90% of gallbladder tumors are adenocarcinomas, 10-20% epidermoid, however squamous cell carcinoma is a rare and poorly diagnosed entity, representing approximately 1-3% [3] of cases, its importance represents a more aggressive behavior compared to adenocarcinomas.[4] It is an entity characterized by keratin pearls presenting a predominant keratinization, with probable malignant glandular transformation [5]. in theory it is a variety of gallbladder cancer originating from a squamous metaplasia of a pre-existing adenocarcinoma, which is generated metaplasia-dysplasia-carcinoma sequence, some bibliographies catalog it as a mixed gallbladder cancer (adenocarcinoma-epidermoid). [6]

It has been demonstrated that cholecystitis with chronic persistent inflammation is the most important risk factor for the development of gallbladder cancer, there are other factors such as women, age between the fifth to sixth decade of life, gallbladder polyp over 1 cm, porcelain gallbladder, chronic infection by salmonella typhi, inflammatory bowel disease and primary sclerosing cholangitis. [7]

The staging of gallbladder cancer depends on the invasion within the wall (T), invasion to lymph nodes (N) and metastatic disease (M), this according to the AJCC [12] [Figure 2][8]. It is known that the factor, the diagnosis can be suspected in patients with elevated CEA greater than 100u/ml, history of cholelithiasis, ultrasound has a sensitivity of 50% for diagnosis of cancer, this being of limited usefulness, CT offers greater sensitivity with lesions larger than 1-2 cm, also allows a locoregional staging. However, cholangioresonance is noninvasive, has a sensitivity greater than 95%, being this the best imaging study for diagnosis. Endoscopic retrograde cholangiopancreatography allows to evaluate the integrity or involvement of the main biliary tract, sometimes allows brushing with biopsy. [9]

Surgical treatment is the only curative management, there are 3 scenarios where the diagnosis is made, and surgical management should be given. The most frequent diagnosis made after

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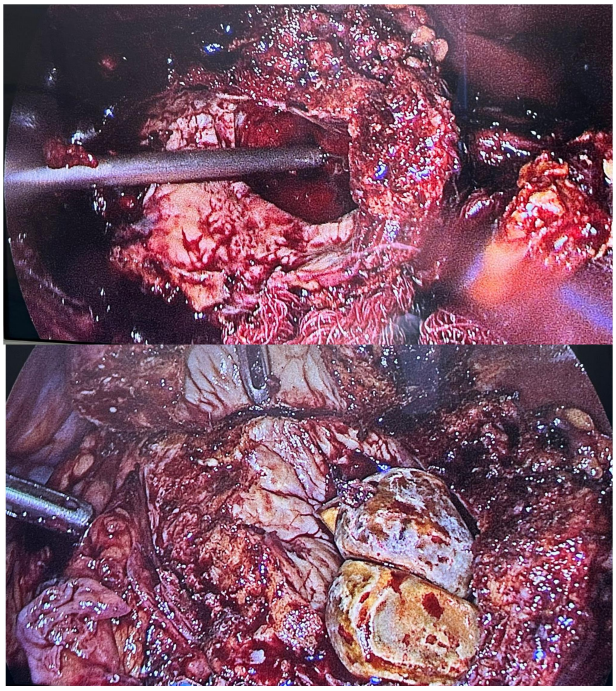

Figure 1-2. Gallbladder with a 12 mm thickened wall, with lithiasis larger than 15 mm, free liquid, desmoplastic reaction, and fibrosis.

cholecystectomy (total or subtotal)[10], less frequently suspicion and confirmation in the preoperative period and finally gallbladder cancer confirmed by transoperative study. Surgical management consists of radical cholecystectomy, or sometimes extended with segmental or lobular liver resection, always considering the lymphadenectomy. In patients with metastatic disease or extensive locoregional involvement, chemotherapy with or without radiotherapy should be prescribed. [10]

Follow-up is done with outpatient visits from 3 to 6 months during the first 2 years and visits from 6 to 12 months up to 5 years or according to the clinical context, with CT, CA 19.9, CEA and clinical behavior. [11]

Case report

The patient is a 48-year-old female with a history of smoking and occasional alcoholism since the age of 18. No other important factor.

She started her condition 30 days prior to hospitalization with symptoms of dyspepsia associated with cholecystokinetic food, no pain, no fever, no weight loss, with free evolution, until the development of jaundice and generalized pruritus, so she came to our unit for care.

At our evaluation she was found with jaundice ++/+++, asymptomatic, afebrile, no nausea, no pain, soft depressible abdomen, no palpable mass, no pain on pressure, no evidence of peritoneal irritation.

Patient has liver function tests of Albumin 3.8, GGT 363, TGO 181, TGP 296, Alkaline Phosphatase

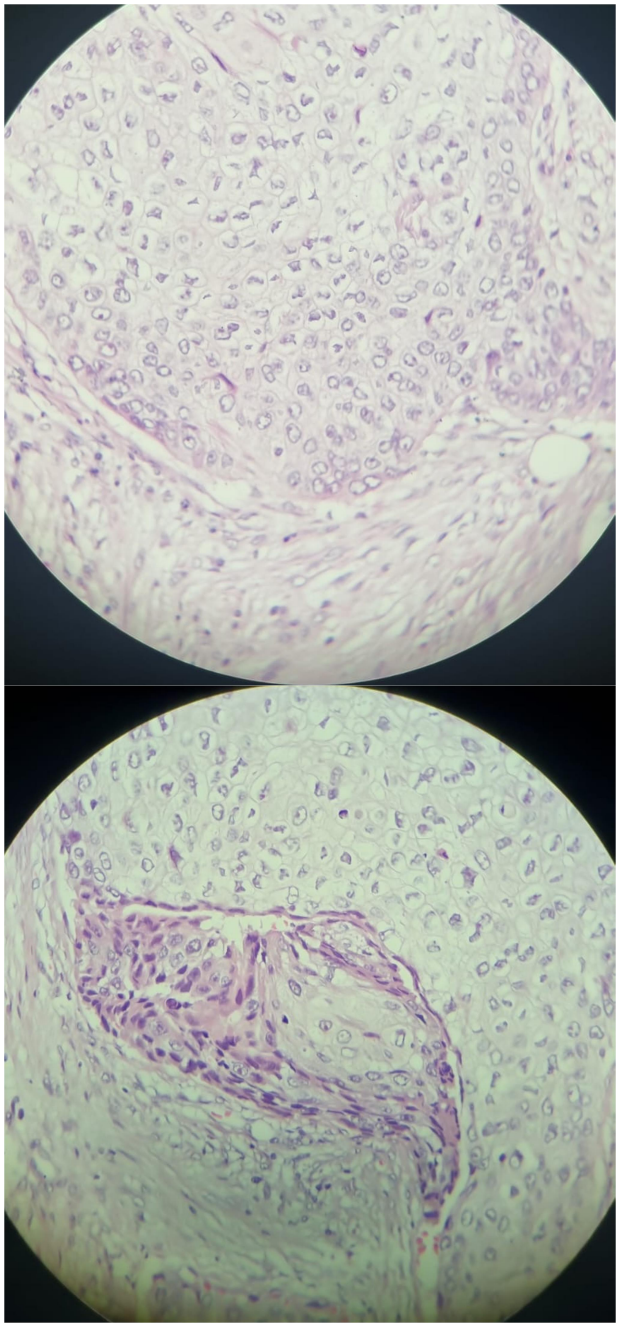

Figure 3-4. Squamous cells are observed in histopathology sample of gallbladder.

407, Lactate Dehydrogenase 328, Total Bilirubins 4.7, Direct Bilirubin 3. 7, Blood chemistry with Amylase 45, C Reactive Protein 32.4, Blood Biometry with Hemoglobin of 11.4, Platelets 501, white cell count 7.42 with 71% segmented and CA 19.9 of 500 u/ml.

Ultrasound with heterogeneous liver, without intra or extrahepatic bile duct dilatation, common bile duct of 7 mm, portal vein of 9 mm. Gallbladder 27x43x38mm, 5 mm wall, heterogeneous content compatible with mud, multiple lithos and free liquid.

Patient is accepted in the surgery service with the diagnosis of cholelithiasis without data of exacerbation, with high risk of choledocholithiasis, so

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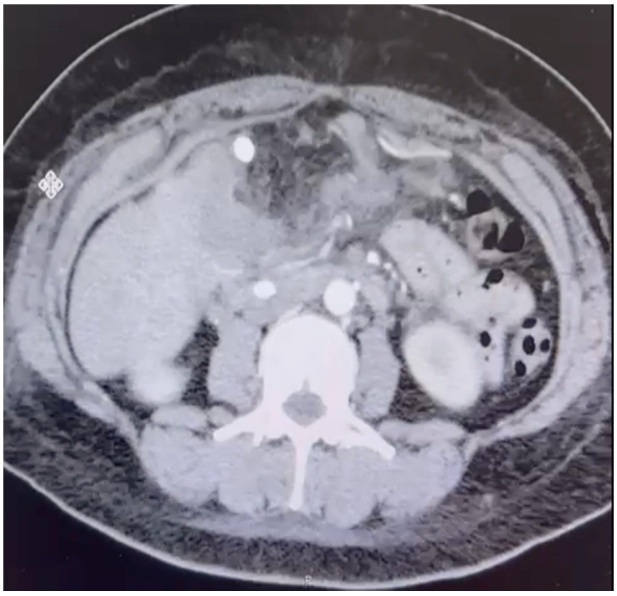

Figure 5. CT scan; Lesion adjacent to hepatic segments IV and V of irregular characteristics, with pericoledochal lymph node activity that generates compression of the bile duct.

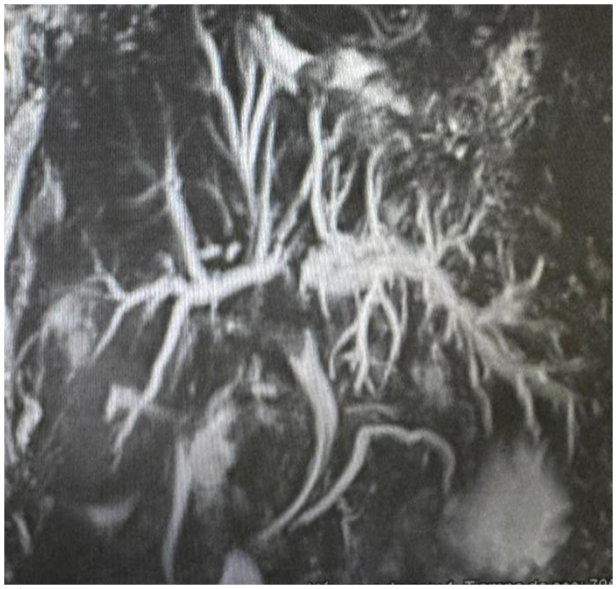

Figure 6. Compression and filling defect of the main bile duct and at the level of the hepatic confluence, in the biliary reconstruction of magnetic cholangioresonance, with probable extrinsic compression.

it is programmed for laparoscopic cholecystectomy with Endoscopic Retrograde Cholangiopancreatography (ERCP).

The patient underwent the procedure 2 days after hospitalization. An attempt was made to perform ERCP during the first stay, however, neither a guidewire nor a sphincterotome could be cannulated, so it was decided to continue with laparoscopic cholecystectomy to perform Rendez-Vous.

During laparoscopic cholecystectomy findings, a 14x10x9mm inflamed, necrotic gallbladder, 12mm thickening, with significant desmoplastic infiltration with infiltration towards IVa segments, edema and free liquid. It is classified as Parkland V, gallbladder with plastron and firm adhesions without being able to dissect structures, so the decision was made to perform a type D subtotal cholecystectomy [Figure 1-2]. An attempt was made to perform Rendez-Vous during laparoscopic cholecystectomy, however, it was not possible to pass a guide through the cystic duct due. Aspirative soft drainage is left in the cystic duct.

Subsequently, a second ERCP attempt was made, after several attempts, the biliary tract was cannulated with a two-way technique, cholangiography was performed with water-soluble contrast medium, observing a dilated biliary tract up to 9 mm, without observing the passage of contrast medium in the middle third of the common bile duct, without observing the rest of the biliary tree. After a new attempt at cholangiography, the right hepatic duct with its anterior and posterior branches was identified. Sweeps were performed without obtaining sludge or lithium, with probable extrinsic compression, and a 10cm x 10 Fr plastic biliary prosthesis was placed.

A surgical specimen of gallbladder was sent to be studied, with histopathological result of infiltrating carcinoma, squamous cell type, Grade 1, well differentiated, in body and neck of gallbladder, with tumor dimensions of 3.6x1.3cm, with macroscopic perforation of the serosa, lymphovascular invasion present, with surgical margins in contact with the lesion, histopathological typing pT3, N not assessable, M not assessable. [Figure 3-4]

Double contrast CT scan was performed, identifying a lesion of 4x4x2 cm with contrast enhancement, irregular, adjacent to hepatic segments VI and V, with lymph node activity in the common biliary tract in the upper third. [Figure 5], Subsequent magnetic resonance cholangiography where post-surgical changes are visualized with vesicular neck remnant, with pericolecystic thickening and inflammatory-compressive changes in the proximal third of the biliary tract, with involvement of the confluence of the right and left hepatic ducts. [Figure 6]

Patient with adequate clinical evolution, tolerating diet, without pain, drainage output of serohematic characteristics is observed. She is discharged and surgical management with extended cholecystectomy is planned.

Discussion

In this clinical case as mentioned by the scientific evidence, the incidence of gallbladder cancer

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is more frequent in the female sex from the fifth decade, with a history of cholelithiasis/cholecystitis, thickened gallbladder wall, these factors were present in our patient. Paraclinical tests were also taken, identifying elevated leukocytes, total bilirubin at the expense of direct bilirubin, with CA 19.9: 500 u/ml, being 5 times higher than the limit (100 u/ml). According to the histological subtype of gallbladder cancer, previously commented the order, being adenocarcinoma and epidermoid in most cases, in less frequency the squamous types or gallbladder carcinomas, in our patient was evidenced in the histopathology infiltrating carcinoma with squamous cell type, grade 1, well differentiated, with tumor extension affecting the serosa (T3), being this a rare entity and with poor scientific documentation.

There are 3 scenarios of diagnosis of gallbladder cancer, a) post-surgical diagnosis after cholecystectomy, b) pre-surgical diagnosis and c) diagnosis at the time of surgery with transoperative diagnosis. In this case, the diagnosis was post-surgical, being complemented with double contrast and triphasic tomography, since it allows locoregional staging, where there is evidence of segment IVa-dependent lesion, without regional lymphatic activity, without distant metastatic activity.

Curative surgical management is extended or extended radical cholecystectomy (cholecystectomy with a minimum margin of 2 cm to the gallbladder bed with or without segmental or lobular liver resection and lymph node dissection of the hepatoduodenal ligament, nodes posterior to the second portion of the duodenum, pancreatic head, and celiac trunk) is indicated in patients with clinical stage IIIA and IIIB or less. Our patient presented serosal invasion (T3), lymph node activity in the common bile duct (N1) and no distant metastasis (M0), she is classified as clinical stage IIIB, being a candidate for surgical management with extended radical cholecystectomy with adjuvant chemotherapy and radiotherapy.

Conclusion

Squamous carcinoma of the gallbladder is a rare entity, infrequent and with little scientific evidence to date. Diagnosis is usually late stage; surgical management is the best treatment strategy. It is necessary to report more cases and improve the knowledge of this specific entity to have an early diagnosis and improve survival.

Conflicts of interests

The authors have no conflicts of interests.

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