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Case Report

Wrong Track for Initial Management of Gallbladder Adenosquamous Carcinoma: A Case Report and Literature Review

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Abstract

Introduction: Although rare, the gallbladder carcinoma is the most common malignant lesion of the biliary. It is generally diagnosed late in the disease course with a poor prognosis due to vague and nonspecific clinical signs and symptoms.

Presentation of Case: A 42-year-old African man was referred to hospital with right upper quadrant pain and general deterioration a month after the diagnosis and treatment of vesicular abscess in Rwanda. The complete assessment revealed adenosquamous carcinoma of the gallbladder treated by radical surgery and adjuvant chemotherapy.

Discussion: Global distribution of gallbladder cancer suggests a major influence of genetics and environment. The precise aetiology is unknow. The final diagnosis is anatomopathological helped by imaging. The surgical treatment is curative and there is no standard protocol for adjuvant treatment.

Conclusion: Our case, in the light of the literature, highlights the difficulties concerning the diagnosis of gallbladder carcinoma and the importance of not underestimating this diagnosis so as not to delay treatment.

Keywords: Adenosquamous Carcinoma; Gallbladder; Histology; Surgical Treatment; Adjuvant Treatment

Introduction

Among the diseases of the gallbladder, the importance of the diagnosis of cancer should not be underestimated.

Although rare, the gallbladder carcinoma is the most common malignant lesion of the biliary tract and the fifth most common among malignant neoplasms of the digestive tract. This cancer is most often discovered at random from a cholecystectomy and is generally diagnosed late in the disease course with a poor prognosis due to vague and nonspecific clinical signs and symptoms.

We report a case of a 42-year-old African male from Rwanda who underwent a laparoscopy in Africa for a gallbladder abscess whose histological assessment confirms the diagnosis. The patient was brought to our hospital a month later. Our assessment reveals a squamous adenocarcinoma treated by radical cholecystectomy and adjuvant chemotherapy.

In this article, based on our case, we discuss the epidemiology, risks, diagnosis and therapeutic management for primary gallbladder carcinoma.

Presentation of Case

A 42-year-old African man was referred to the hospital with right upper quadrant pain and general deterioration a month after the diagnosis and treatment of vesicular abscess in Rwanda.

In Rwanda, after the abscess diagnosis based on a CT scan, he underwent an exploratory laparoscopy for drainage with biopsy and postoperative antibiotic treatment. The pathological analysis of the biopsy showed a banal inflammatory tissue.

History of present complaint in our hospital reports night sweat, inappetence associated with weight loss of more than 15% of body weight in one month as well as increasing discomfort in the upper right quadrant despite treatment in Rwanda.

The patient has no personal or family cancer's history. He is not taking any chronic treatment. He is a consultant in the agricultural sector in Africa.

Physical examination reveals a palpable and painful mass in the right hypochondrium but does not show jaundice, skin lesion or neurological disorder.

The abdominopelvic CT scan before surgery showed a distortion of gallbladder with tumor measuring 8 x 6 x 8,5 cm with a suspicion of invasion of hepatic's segments V and VI and colic angle but not extension to lymph nodes or distant metastases (Figure 1).

Figure 1: Preoperative computed tomography.

Axial section showed an enlarged heterogeneous mass (8 x 6 x 8,5 cm) and a lumen full of tumors of the gallbladder.

Laboratory examinations show an inflammatory syndrome with an increase alkaline phosphatase without other hepatic disturbance, an increase CEA without an increase CA19.9 and normal viral and parasitic serologies.

First the surgical strategy included biopsy by laparoscopy which confirmed the diagnosis of gallbladder cancer.

Secondly, by a right subcostal laparotomy, an extended cholecystectomy that included resections of the gallbladder bed and extrahepatic bile duct confirmed R0 on extemporaneous analysis.

The macroscopic examination of the specimen shows 13 x 10 x 8 cm tumour. It was a solid mass with a heterogeneous content comprising a necrotic center and areas of haemorrhage and itching (Figure 2).

Figure 2: Resected specimen of gallbladder.

Histopathological examination showed strongly atypical tumour cells with several different components: foci of keratinizing differentiation and glandular structures of varying sizes.

The pathological diagnosis was adenosquamous carcinoma of the gallbladder, T3 N0 M0 with presence of lymphovascular embolus (Figure 3 and 4).

He was treated with adjuvant gemcitabine. Gemcitabine was administered weekly, two times (day 1 and 8) every 3 weeks for 3 cycles. After 12 months, no recurrence was detected.

Figure 3: Histopathological findings: the squamous component.

Figure 4: Histopathological findings: the glandular component.

Discussion

Gallbladder carcinoma is the most common malignant tumour of biliary tract. It affects women two to six times more often than men. It is more common in caucasians than black people of both sexes with a greater incidence up to 50%. In addition to gender, incidence steadily increases with more than 90% over age of 50 and a peak incidence of age 70 - 75 [1,2].

Worldwide, there is prominent geographic variability in for this neoplasm with the highest incidences seen in India but also in East Asia, South America, central and eastern European countries [3,4].

Global distribution of gallbladder cancer, ethnicity, socioeconomics aspect, culture and lifestyle variation suggest a major influence of genetics and environment on the development of this disease.

The precise aetiology is unknow, but it seems that there is an important link between the presence of gallstones. Gallstones are found in 60 - 95% of gallbladder carcinoma cases. The risk of developing gallbladder carcinoma increases with the presence of gallstones, regardless of the type, and directly parallel to the size up to a ratio 10:1 if the diameter of the stone is greater than 3 cm [2,5].

Furthermore, there are other risk factors that would appear to be involved: porcelain gallbladder, polyps, anomalous pancreaticobiliary duct junction, carcinogens exposure, Typhoid infection, *Helicobacter pylori* infection, obesity and oestrogens [6].

Adenosquamous carcinoma, particularly rare, amounts for 1 to 4% of gallbladder cancer and its histological diagnosis requires a double malignant component, glandular and squamous [2,6]. The glandular component tends to invade the lymphatic, vascular and biliary structures, while the squamous component presents a local aggressiveness by frequently invading the liver, duodenum and right colic angle [7,8].

It seems that patients with gallbladder Adenosquamous carcinoma are often diagnosed at advanced stages.

Diagnosis of gallbladder cancer is difficult due to non-specific symptoms and signs. Currently, gallbladder carcinoma is diagnosed incidentally during surgery for benign gallbladder diseases by the pathologist in 15 - 20% of the cases [2].

Symptoms include pain in the right upper quadrant, vomiting, anorexia, weight loss, general weakness, palpable mass. Jaundice can be commonly identified and associated with 44% of advanced diseases. Rarely, patients present extra-abdominal metastases (lung, pleura), hepatomegaly, ascites or paraneoplastic syndromes [9,10].

Biological results, including inflammatory signs and hepatic results, are not specific and most often normal. However, tumor

markers such as CEA and CA 19-9. Those tumor markers increase suspicion if they are abnormal, but they are not diagnostically useful because of the lack of specificity and sensitivity [11].

The approach to this unspecific clinical and biological set includes examination by ultrasound. Further computed tomography can complete the investigation by allowing to know the extent of gallbladder carcinoma and the staging. The pet-scan is also not indicated.

No other imaging technique has been shown to be superior in the assessment of gallbladder neoplasm [12,13].

The final diagnosis is anatomopathological of the specimen. The TNM system is currently used for the staging of Gallbladder carcinoma. A study has shown that at the time of diagnosis 11% of carcinomas are T1, 58% T2, 30% T3 and 2% T4 [14].

Based on the literature review, surgical treatment with negative histologic margins remains the only curative treatment for gallbladder carcinoma, whatever the type and can effectively improve the prognosis of these patients. Surgical options include simple cholecystectomy, radical or extend cholecystectomy to the adjacent liver (2 cm of the gallbladder bed) and eventually partial resection of the small intestine, duodenum, right colic angle for locoregional invasion.

Surgical resection is contraindicated for advanced disease with multiple local and distant metastases [15,16].

The effectiveness of chemoradiotherapy and radiotherapy does not outweigh those of surgery.

External radiotherapy as an adjuvant treatment has shown some benefits in survival and lower local recurrence rate, but as stand-alone treatment, it is reserved for palliative [17].

Chemotherapy seems to show no significant benefit in terms of morbidity and mortality.

The benefits of adjuvant treatment are unclear, multidisciplinary therapy, depending on staging, is required for patients [18,19].

In literature, Adenosquamous carcinoma of the gallbladder were found to have a significantly poorer overall survival rate than conventional adenocarcinoma. However, the results are heterogeneous and some studies with patients that achieved R0 resection suggest no significant difference. Despite an advanced stage, R0 resection could provide a good outcome, irrespective of pathologic subtype. The 5-year survival for GBC has been shown to increase to 80% after curative surgery when tumour penetration was limited.

Conclusion

Adenosquamous carcinoma are rare and aggressive diseases for which the radical surgery currently represents the only significative curative therapy and there is no standard adjuvant treatment. The role of adjuvant therapy is not well defined.

In fact, this type of cancer remains rare but suffers from a poor prognosis for the advanced diseases with currently limited means of treatment due to lack of knowledge.

More than a century after the first reported case of GBC, sensitive screening modalities for early detection of the disease are still lacking. Therefore, the status of GBC has not shown any definitive improvement in overall survival and continues to be plagued by the presence of advanced disease at diagnosis. In addition, the treatment of this cancer suffers from the lack of systematic reviews and randomized studies from large population regarding surgical treatment and adjuvant therapy options to improve the survival.

Consent

Written informed consent was obtained from the patient for publication of this case report and accompanying images.

Ethical Approval

Not required for this case report

Conflict of Interest Statement

The authors report no declaration of interest.

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Bibliography

1. Lazcano-Ponce EC., *et al*. "Epidemiology and molecular pathology of gallbladder cancer". *CA: A Cancer Journal for Clinicians* 51 (2001): 349-364.

2. Misra S., *et al*. "Carcinoma of the gallbladder". *Lancet Oncology* 4 (2003): 167-176.

3. Tominaga S., *et al*. "Epidemiologic aspects of biliary tract cancer in Japan". *National Cancer Institute Monograph* 53 (1979): 25-34.

4. Randi G., *et al*. "Gallbladder cancer worldwide: geographical distribution and risk factors". *International Journal of Cancer* 118 (2006): 1591.

5. Zatonski WA., *et al*. "Epidemiologic aspects of gallbladder cancer: a case-control study of the SEARCH program of the International Agency for Research on Cancer". *Journal of the National Cancer Institute* 89 (1997): 1132-1138.

6. Kanthan R., *et al*. "Gallbladder cancer in the 21st century". *Journal of Oncology* (2015): 7.

7. Henson DE., *et al*. "Carcinoma of the gall- bladder: histological types, stage of disease, grade and survival rates". *Cancer* 70 (1992): 1493-1497.

8. Chan KM., *et al*. "Adenosquamous/squamous cell carcinoma of the gallbladder". *Journal of Surgical Oncology* 95 (2007): 129-134.

9. Misra NC., *et al*. "Carcinoma gallbladder". In: Johnson CD, Taylor I (Editions). Recent advances in surgery, volume 20. London: Churchill Livingstone (1997): 69-87.

10. T Okabayashi., *et al*. "Surgical outcome of carcinosarcoma of the gall bladder: a review". *World Journal of Gastroenterology* 15.39 (2009): 4877-4882.

11. Stephen AE and BergerDL. "Carcinomaintheporcelaingallbladder:a relationship revisited". *Surgery* 129 (2001): 699-703.

12. Onoyama H., *et al*. "Diagnostic imaging of early gallbladder cancer: retrospective study of 53 cases". *World Journal of Surgery* 23 (1999): 708-712.

13. Miller G and Jarnagin WR. "Gallbladder carcinoma". *Journal of the European Society of Surgical Oncology* 34 (2008): 306-312.

14. Shindoh J., *et al*. "Tumor location is a strong predictor of tumor progression and survival in T2 gallbladder cancer: an international multicenter study". *Annals of Surgery* 261 (2015): 733.

15. Oohashi Y., *et al*. "Adenosquamous carcinoma of the gallbladder warrants resection only if curative resection is feasible". *Cancer* 94 (2002): 3000-3005.

16. Kim WS., *et al*. "Clinicopathologic analysis of adenosquamous/squamous cell carcinoma of the gallbladder". *Journal of Surgical Oncology* 103 (2011): 239-242.

17. Houry S., *et al*. "Gallbladder cancer: role of radiation therapy". *Hepatogastroenterology* 46 (1999): 1578-1584.

18. Sharma A., *et al*. "Best supportive care compared with chemotherapy for unresectable gall bladder cancer: a randomized controlled study". *Journal of Clinical Oncology* 28 (2010): 4581-4586.

19. Ren B., *et al*. "A meta-analysis of the efficacy of postoperative adjuvant radiotherapy versus no radiotherapy for extrahepatic cholangiocarcinoma and gallbladder carcinoma". *Radiation Oncology* 15 (2020):1-10.

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