CLINICAL CASE

LESSONS DERIVING FROM AN EASY LAPAROSCOPIC CHOLECYSTECTOMY

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Abstract

Gallstone is a very frequent condition, therefore laparoscopic cholecystectomy - the gold standard in the treatment of the above mentioned pathology - is the most frequent surgical intervention performed in the surgery departments in the country and abroad. At the same time, it is the laparoscopic surgery with the highest number of intraoperative incidents and accidents. Thus, in a surgical environment dominated by the stress of injuring the main bile duct, extracting the piece and sending it for the anatomical pathology examination remains on a secondary level. This is why we would like to discuss a problem related to laparoscopic cholecystectomy which is less approached in the specialty literature. Patient B, admitted to the General Surgery and Emergency Clinic III of the University Emergency Hospital of Bucharest (UESB) – medical chart (M.C.), aged 66 with a surgical history – a simple, uncomplicated laparoscopic cholecystectomy, undergone two years before, with a good postoperative evolution – came to the emergency room with diffuse abdominal pain, more pronounced on the right flank. The clinical, biological and imaging evaluation performed did not reveal any pathological aspects, except for the abdominal-pelvic CT scan with a contrast agent which revealed an expansive process in the right hypochondrium lining the costal side of the liver segment VI. The tumour was surgicaly removed; the extemporaneous histopathological examination was inconclusive about the origin of the tumoral formation (adenocarcinoma of the digestive tract). The key to the diagnosis was obtained in an administrative manner because, when the discharge letter delivered at the time of the cholecystectomy was reviewed, the absence of the result of the anatomical pathology examination of the cholecystectomy piece was noticed. The respective clinic was contacted and the result of the anatomical pathology examination was obtained, i.e. adenocarcinoma of the gallbladder. After 3 months from the surgery the patient returned with a left breast tumor with the HP diagnosis of invasive ductal carcinoma and a total Madden mastectomy wa performed. After 5 more months, surgery was necessary again for a parietal epigastic tumor - with the anatomical pathology result of cholangiocarcinoma. The author reports the case because he believes that this is further proof of the necessity of sending any cholecystectomy piece, and broadly speaking, any excised piece, for the HP examination. Moreover the patient's attention should be drawn to the necessity of returning to the clinic to take the anatomical pathology result because this result may require the reconsideration of therapeutic conduct .

Keywords: *laparoscopic cholecystectomy, histopathological examination, the lesion of the bile duct, gallbladder*

Introduction

Gallstone is a very frequent condition, with a mean incidence in Romania of 10% of the general population [1] . The gold standard in the treatment of this condition is laparoscopic cholecystectomy. This therapeutic method has developed substantially during the last two decades so that, at present, most general surgery clinics in the country have the equipment and trained personnel to perform it.

Cholecystectomy is currently the most frequently performed laparoscopic surgery, however it is the intervention with the highest number of intraoperative incidents and accidents. Taking into account the awareness of the surgeon that there is a high risk of injuring the main biliary ducts, extracting the cholecystectomy piece and sending it to the histopathological examination are left on the secondary plane at the time of the intervention, and the rapidly favorable postoperative evolution often cancels the thought of following up the anatomical pathology result.

Before such data, several questions become very justified: "How many of the anatomical pathology results of the cholecystectomy pieces are followed by the patients?", "How many of the anatomical pathology results of the cholecystectomy pieces are followed by the surgeon ?", "How many of the anatomical pathology results of the cholecystectomy pieces confirm gallbladder cancer?"

Although gallblader cancer has a low incidence in the general population (1.5/100,000) [2], it has a poor prognosis even if it is found in an early stage. Studies show that the HP examination reveals gallbladder cancer in 0.5-2 % of the cholecystectomy pieces [3,4] **.**

Case Presentation

We report a representative case for the previous discussion: a patient, aged 66, known to have a medical and surgical history, including a laparoscopic cholecystectomy performed two years before, was hospitalized in the General and Emergency Surgery Clinic III of UESB for the development of a symptomatology consisting in diffuse abdominal pain, more pronounced in the right hypochondrium, bowel disorders (alternating constipation/diarrhea), symptoms which had been evolving for approximately 6 months and had become exacerbated 3 days prior to the presentation to the emergency room .

I consider it appropriate to underline the fact that the laparoscopic surgery did not involve any intraoperative incidents or accidents. The postoperative evolution was a simple one, the patient being discharged on the third postoperative day .

The clinical examination and the biological samples at the time of the hospitalization did not reveal any changes.

The CT scan findings show: surgical removal of the gallbladder, expansive irregular process of 8,5/5,5 cm on the axial plane and 7.5 cm on the craniocaudal plane, clearly shaped, which lines the costal side of the liver segment VI and deforms the adjacent peritoneum, without any noticeable changes of the surrounding fat.

Management and Results

The patient underwent surgery. A well-defined parietal tumor was revealed intraoperatively, located subhepatically at the level of the 6th rib, with the size described by the CT scan - 8/5 cm. The liver did not have metastases. The rest of the intraperitoneal organs accessible to visual control and macroscopic probe were normal. A tumorectomy was performed and the tumor was assessed extemporaneously by HP examination: poorly differentiated adenocarcinoma of the digestive tract. The origin of tumoral formation could not be found.

Although the postoperative evolution was favorable, the concern of the surgical team was the etiology of the tumoral formation, which could not be explained by the medical history, the clinical and the histopathologic data. The answer was obtained in an administrative manner: when the medical documents of the patient were reviewed, we noticed the specification on the discharge letter to return and to collect the result of the anatomical pathology examination of the cholecystectomy piece. This histopathologic result was missing

because the patient had not complied with the recommendation on the discharge letter. The hospital and the respective clinic were contacted and the result of adenocarcinoma of the gallbladder was obtained.

From the point of view of the evolution of the cancer, the patient's course was sinuous because after three months she returned with a tumor of the left breast. A punch biopsy was performed and the extemporaneous HP examination and the paraffin test showed an invasive ductal carcinoma, for which she was properly treated.

After five more months, the patient was hospitalized for the occurrence of a parietal tumor at the epigastric level, described at the CT-scan examination as an expansive tissular process with the size of 3/3 cm coming into intimate contact with the rectus muscle of abdomen or developing from it. The surgical excision of the tumor was performed and the histopathological examination confirmed an adenocarcinoma of the gallbladder.

After six months and one year following the last intervention, the clinical, biological and imaging evaluation of the patient showed no signs of metastases**.**

Discussions

Gallbladder cancer is the most common of the biliary duct cancers and the fifth of the gastrointestinal cancers with a rapid progress. [5]

Because the clinical manifestations occur in the late stages of the disease, the early detection of gallbladder cancer is made by chance during surgery, especially while performing a cholecystectomy**.**

Among the patients diagnosed with gallbladder cancer, those whose cancer was discovered intraoperatively are the only ones who have a higher rate of survival. [6]

The studies show that in 1-2% of the cholecystectomies the HP examination reveals gallbladder cancer without any preoperative or intraoperative suspicions. [7]

Under these circumstances the question arises: "Is it necessary to send all the cholecystectomy pieces for an HP exam ? "

According to some authors [8], for financial reasons, only the suspicious pieces, those with visible macroscopic changes intraoperatively and those from genetically predisposed patients should be sent.

We adopt a critical attitude towards to this position, considering that a diagnosis made at an early stage in the development of a neoplasm is decisive in order to have a favorable influence on the evolution of the cancer and to increase the chances of survival**.**

Conclusions

- The post-cholecystectomy management of the case took into account the usual complications, losing sight of those due to a possible gallbladder cancer.
- Although the cholecystectomy piece was sent to the HP examination, the patient's discharge letter included instructions to return to the clinic to obtain the anatomical pathology results and the result was communicated to the surgical team, the information reached the patient late, therefore she did not receive the appropriate oncological treatment .
- We support the idea that any cholecystectomy piece, and generally any excised piece, should be sent for an HP exam .
- Parietal tumors developed in the areas which were in contact with the neoplastic gallbladder through the seeding of the neoplastic cells in these areas.
- Any surgically excised piece should be extracted from the abdominal cavity without coming into contact with the abdominal wall. This should be done by placing the piece in an endo-bag, so as to eliminate the possibility of the dissemination of neoplastic cells.
- Even in a patient whose gallbladder has a normal intraoperative macroscopic aspect and the risk of the existence of gallbladder cancer is very low (below 1%), we should not exclude this possibility, because an early diagnosis helps to establish an adequate oncological treatment, thus significantly improving the prognosis.
- The surgical team and the patient should obtain the result of the HP examination of the piece as soon as possible.
- If the anatomical pathologic result indicates gallbladder cancer, the recommended attitude is the parieto-abdominal recovery at the place of the trocar with which the piece was

extracted (if the extraction was not made using an endo-bag).

The particular character of the case

The case shows the avatars and the repeated suffering of a patient, deriving from an unfortunate combination of factors, respectively, on the one hand a rare malignancy, and on the other hand a histopathological result which was lost sight of due to administrative reasons.

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