

Lecture no. 19

Video-laparoscopic cholecystectomy and Gallbladder Carcinoma

Ever since video-laparoscopic cholecystectomy became a routine procedure, numerous authors have on the removal of gallbladders with foci of adenocarcinoma, which on exploration prior to resection appeared normal or in any case presented the usual alterations caused by the lithiasic disorder. This possibility was already known when laparotomy was performed, and the literature on the subject estimates an incidence of carcinoma in calculous gallbladders in all cholecystectomies ranging from 0.3 to 4.0 %.

The problem, nonetheless, was not particularly pressing for surgeons before the age of laparoscopy, since the intraoperative finding of a cholecystic neoplasm, be it palpatory or following opening of the specimen, allowed immediate treatment of the disease. By contrast, at present the diagnosis is made in most cases after the video-laparoscopic procedure, thereby raising a number of issues related to the subsequent management of these patients and questions on proper methods to limit delays in diagnosis as much as possible.

The problem most often encountered seems to be that following the spread of cancer cells in the abdominal cavity and, especially, within the port of the trocar used for removal of the gallbladder. In this regard, it's necessary to bear in mind that, in some of these cases, the spread transforms a theoretically curable tumor, if limited to the mucosa or to the muscular layer of the organ, into an advanced lesion, and this only as a consequence of the particular modality of the procedure. It's clear that such an eventuality must be prevented at all costs.

The first recommendation to be made is to ensure that the video-laparoscopic surgeon is fully aware that every gallbladder about to be removed may contain neoplastic foci, above all if the lithiasic disease is long-standing and if signs of chronic sclerotic and/or inflammatory phenomena are present.

It thus becomes imperative to avoid breaks in the organ wall with a subsequent leak of its contents. At the slightest suspicion of a neoplasm many authors advise a performing biopsy with a perioperative histological examination and, if positive, conversion into an open procedure with extended resection and adequate lymphadenectomy.

Japanese authors have reported a 5-year 90% survival rate after removal of the IV-V segment and complete dissection of hepatoduodenal ligament and retropancreatic lymph nodes.

One solution to eventual neoplastic spread in cases where clear evidence of

malignancy is lacking but is nonetheless suspected is the use of a bag for the extraction of the gallbladder. Some surgeons advocate the use of an extraction bag in all cases, but this approach applied to all cholecystectomies would be very costly, and all the more inadvisable if the low incidence of cancer reported in the literature is considered. As such, this solution is by no means practicable. On the other hand, an acceptable compromise would be the systematic opening of the gallbladder once removed and its accurate macroscopic inspection. Such a procedure would allow those gallbladders with alterations of suspected carcinoma to be sent to the pathologist for immediate histological examination. This strategy applied to all gallbladders, however, regardless of their macroscopic features, hardly seems to be expedient.

If, indeed, procedures like those described above were carried out, surgeons would be faced with the problem of what to do in the case a positive histological result. Some authors opine that cholecystectomy alone suffices in cases where the lesion has not penetrated the muscular layer of the organ. If, however, the neoplasm involves the entire thickness of the gallbladder wall, a more extensive operation should be performed with a large enough excision of the port through which the gallbladder has been extracted.

At present, the most commonly faced problem remains the postoperative diagnosis of gallbladder cancer. Two solutions are advocated: the first calls for the systematic re-exploration of the abdominal cavity by laparotomy, aimed above all at the site of surgery, at the inspection of all access sites and at the removal as a rule-of-thumb of the scar and the access used for extraction; according to other authors, targeted radiotherapy of the liver bed and umbilical cicatrix would be sufficient. Despite a lack of conclusive evidence in favor of either approach, the first seems to be the most cogent in view of the high degree of aggressiveness that this neoplastic localization bears (3-year survival rate: pT1: 100% - pT2: 65% - pT3: 0%).

In conclusion, when performing video-laparoscopic cholecystectomy it is advisable to carefully inspect the organ's appearance and to proceed cautiously in the presence of gallbladders with dramatically altered morphological features. When faced with highly suspect organs, conversion to an open procedure immediately or after a biopsy may be indicated. In any event, extraction inside a bag of diseased gallbladders and their immediate, ad hoc, histological examination prior to contingent radical intervention are recommended.

Approaches to cases of apparently lesion-free gallbladders that subsequently reveal cancerous foci vary greatly, from the withholding of any treatment whatsoever to laparotomy as a rule-of-thumb. At present, in lieu of controlled studies that establish the most appropriate

management strategy for this difficult problem, a reasonably flexible *modus operandi* that takes into account the patient's conditions, the stage of disease and the prospects for close follow-up is likely the wisest approach.

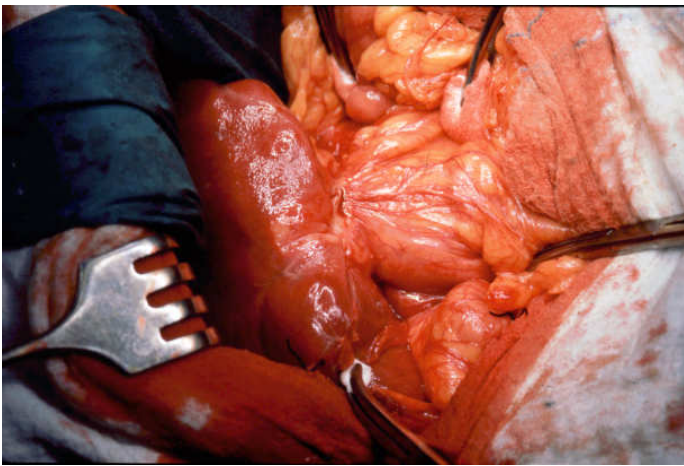
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Videos:

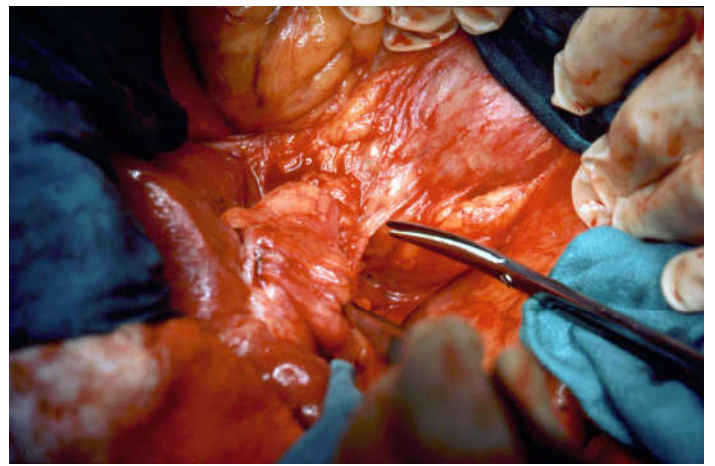
1. Video-laparoscopic evidence of gallbladder carcinoma
2. Video-laparoscopic evidence of gallbladder carcinoma

Slides

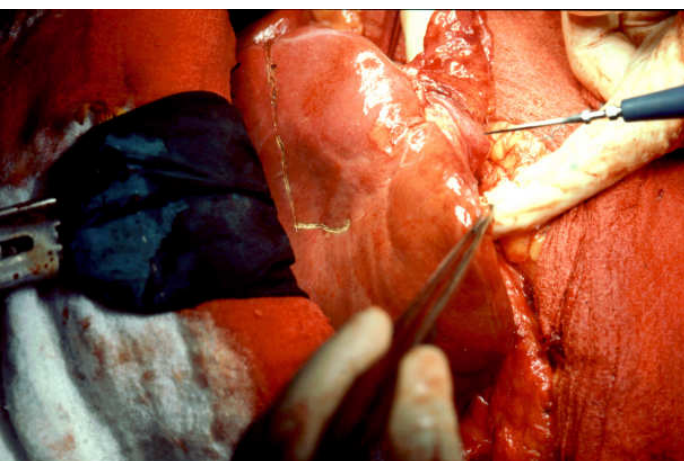
1. Liver - gallbladder resection



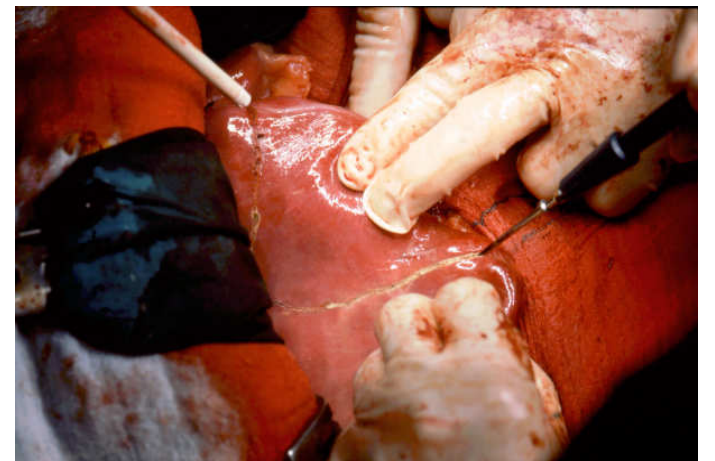
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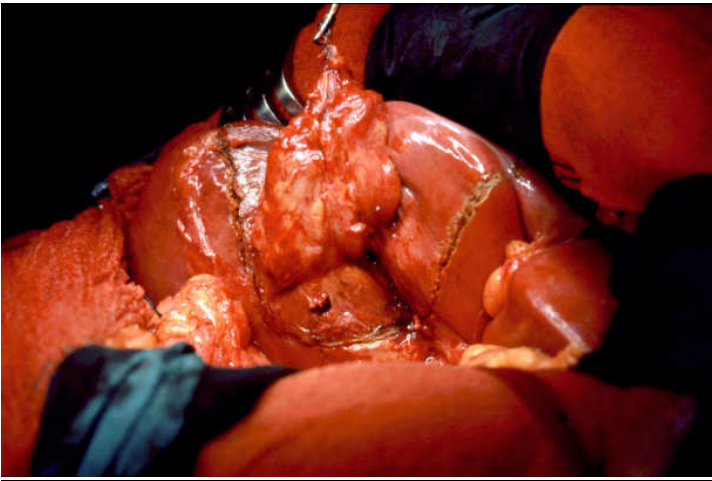
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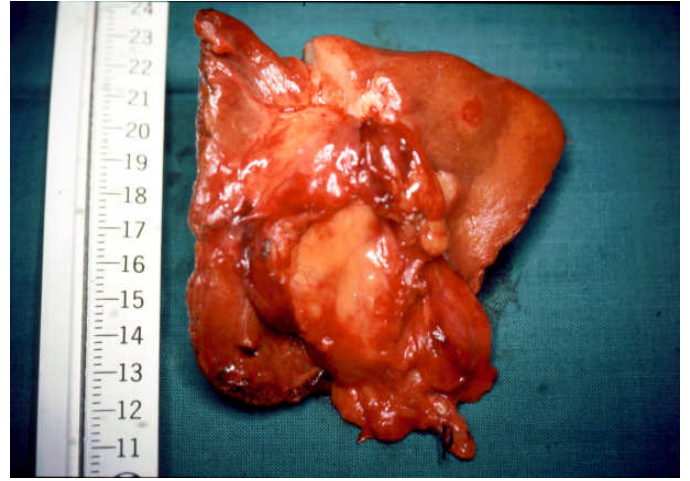
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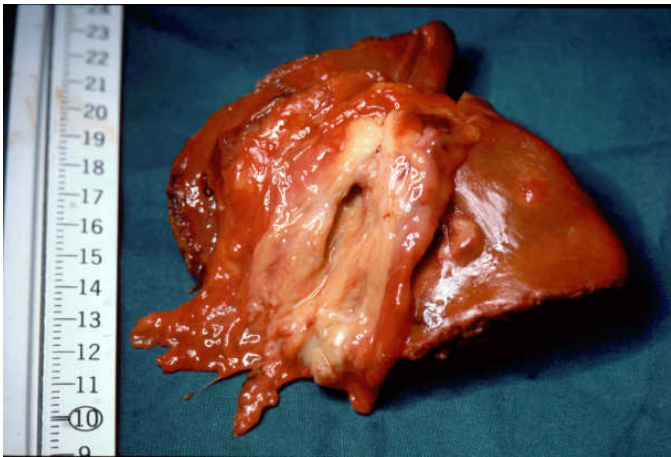
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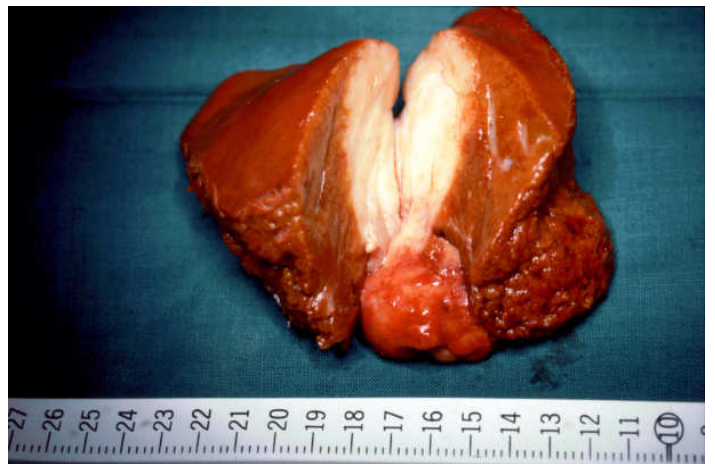
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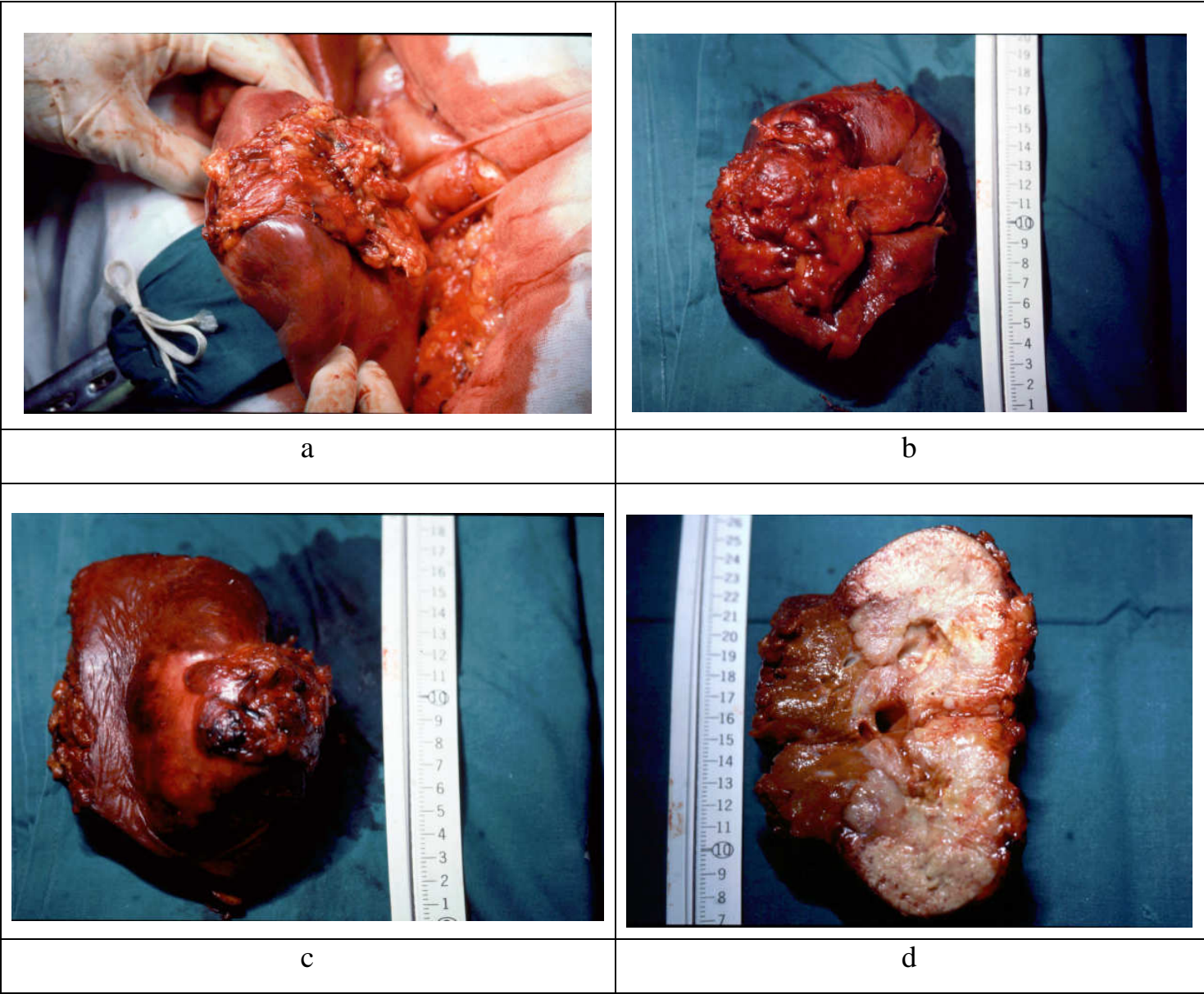
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1. Liver - gallbladder resection

2 - Extensive gallbladder - liver carcinoma



2. Extensive gallbladder - liver carcinoma

References

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