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ORIGINAL PAPER – PERITONEAL SURFACE MALIGNANCY

Laparoscopic Cytoreductive Surgery with Hyperthermic Intraperitoneal Chemotherapy (L-CRS/HIPEC) for Perforated Low-Grade Appendiceal Mucinous Neoplasm (LAMN II)

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ABSTRACT

Introduction. Cytoreductive surgery with hyperthermic intraperitoneal chemotherapy (CRS/HIPEC) is an established treatment for pseudomyxoma peritonei resulting from a perforated low-grade appendiceal mucinous neoplasm (LAMN II). In patients with localized disease, a laparoscopic procedure (L-CRS/HIPEC) can be undertaken.

Methods. This video demonstrates L-CRS/HIPEC in a 66-year-old male who had previously undergone an appendicectomy for an LAMN II lesion. The preoperative computed tomography (CT) scan suggested disease localized to the right iliac fossa. However, laparoscopic assessment unexpectedly revealed disease in the pelvis and on the right hemidiaphragm and liver surface.

Results. A technique for treating the thin film of mucin in the pelvis and on the right hemidiaphragm is demonstrated. The liver is mobilized to facilitate ablation of mucin on the serosal surface of the right lobe. Tips and tricks for starting the omentectomy, dealing with the vascular pedicle, and completing the dissection in the left upper quadrant are shown. The Peritoneal Cancer Index (PCI) score was 5 (3 for the right upper quadrant, 1 for the pelvis, 1 for the small bowel), and the cytoreduction score was CC-1. The operative duration was 8.5 h, and length of hospital stay was 5 days. The patient returned to work after 6 weeks.

Discussion. L-CRS/HIPEC can be performed when patients are unexpectedly found to have disease, provided the appendiceal pathology is low grade and the PCI score is low. There are potential benefits to this approach, with a shorter length of hospital stay and faster functional recovery when compared with traditional open surgery.

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