Parietal Peritonectomy

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ABSTRACT Parietal peritonectomy is an initial part of cytoreductive surgery in patients with peritoneal surface malignancy. After this dissection, the necessary visceral resections, other peritonectomy procedures, and perioperative hyperthermic chemotherapy are administered. The parietal peritoneum is an immobile portion of the abdominal and pelvic surface area that is often involved by cancer implants in patients with carcinomatosis or peritoneal mesothelioma. The dependent peritoneal surfaces, such as the right retrohepatic space, paracolic sulcus, and pelvis, are involved as a result of gravitational forces. The undersurfaces of the diaphragm and omentums are involved because of major peritoneal fluid resorption at these anatomic sites. Before the parietal peritonectomy is initiated, a peritoneal window is created to digitally and visually inspect the undersurface of the anterior abdominal wall,

small bowel, and small bowel mesentery. This inspection is frequently repeated so that parietal peritoneum is removed only where there is visible evidence of cancer implants. Electrosurgery is used as a dissection tool. The dissection proceeds in a centripetal fashion starting at the edges of the large midline abdominal incision and proceeding to the attachments of the peritoneum to the viscera. Initially, exposure is maintained with traction sutures from the skin edge to the fixed retractor. As the dissection deepens, a self-retaining retractor is positioned. Generally, the parietal peritonectomy takes approximately 2½ h and does not require blood replacement. After the parietal peritonectomy, additional cytoreductive surgical procedures and then perioperative chemotherapy are performed.

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