Chapter 19
Pancreaticoduodenectomy: Perioperative Management and Technical Notes

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Preparation of the Patient

Intestinal preparation is not routinely performed at our centre. Preoperative parenteral nutrition is only administered to debilitated patients. Antithrombotic prophylaxis with low-molecular-weight heparin (reviparin sodium, one ampoule, subcutaneously in the evening) and graduated compression stockings are the norm.

The day before surgery, the following are prepared:

– A central venous catheter (generally in the right subclavian vein) is useful during the procedure or in the postoperative period for infusion of hydroelectrolytic solutions, crystalloids and, if necessary, parenteral nutrition, both in debilitated patients and in case postoperative complications arise that delay the resumption of feeding by mouth.

– A peridural catheter is used both for combined anesthesia and, in the postoperative period, for analgesia.

Once the patient is asleep, a vesical catheter and a nasogastric probe are positioned. In addition, antibiotic prophylaxis with sulbactam-ampicillin is administered at the time of induction.

Position of the Patient on the Operating Table

The patient is supine with one of the two arms (preferably the left one), as requested by the anesthetist, exposed.

Good visualization of the operative field can be obtained by “dividing” the operating table at the level of the first thoracic vertebra. If a mobile operating table is not available, the same result can be obtained by positioning a support, such as a gel cushion, inflatable balloon, or folded blanket, under the patient’s shoulders (Fig. 19.1). In order to obtain good exposure, an Olivier retractor is fixed to the appropriate supports on a small arch that must be positioned before the skin is disinfected.
Position of the Operating Team

The first surgeon is positioned to the right of the patient, the first assistant opposite him/her, and the second assistant to the left of the first surgeon. The skin is then disinfected with iodinated solution. Surgical drapes (of cloth or disposable adhesive) are positioned. Usually, we place an adhesive film (such as Steri-drape) over the skin.

Start of the Procedure

Exploration of the Abdominal Cavity

1. The incision: A subcostal bilateral incision or, rarely, a median incision is made.
2. Exploration of the abdominal cavity: Extrapancreatic metastases are excluded by checking for the presence of peritoneal carcinosis and ascites fluid (if present, a sample is taken for cytological examination) as well as by assessing any duodenal or transverse mesocolon infiltration.
3. Echography (IOUS): This technique enables the lesion to be accurately identified and permits the surgical team to ascertain the vascular relationships with respect to the superior mesenteric artery and the superior mesenteric vein. Scanning of the hepatic parenchyma identifies the presence of metastases that were not detected in the preoperative work-up. Exploration of the abdominal cavity and echography can also be conducted by laparoscopy with laparoscopic ultrasound. The indications for laparoscopy with echolaparoscopy are: