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The Role of Intraoperative Ultrasound in Establishing the Surgical Strategy Regarding Hepato-bilio-pancreatic Pathology

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Abstract
Intraoperative ultrasound examination plays a more and more important role in open or laparoscopic abdominal surgery, satisfying the surgeon's need to correctly characterize lesions, bringing various benefits regarding topography and local-regional extension, relations between neighbouring structures and, finally, disease staging. Intraoperative ultrasound is used especially in hepato-bilio-pancreatic tract interventions, given its diagnostic and therapeutic values. Between 2009-2012 in the IOB First Surgery Clinic 57 intraoperative echographies were performed, in patients with hepato-bilio-pancreatic pathologies, leading to intraoperative guided punctures with diagnostic or therapeutic purpose (in case of hepatic abscesses), detection of new hepatic metastases, their ablation under ultrasound guidance, exploration of the local-regional topography with the aim of an optimal hepatic resection. Intraoperative ultrasound allowed radioablation under echographic guidance in 43 patients, the majority presenting multiple hepatic metastases in different areas, this method also enabling control over complete lesional destruction. Also, in 11 cases (22.915), a number of hepatic 20 metastases which had not been visible on preoperative imaging scans were detected, and afterwards treated through RFA; also, in 14 cases intraoperative echography revealed the presence and nature of the hepatic tumours, leading to a correct histopathological diagnostic and an adequate therapy. The method was useful in pancreatic pathologies as well, in complicated forms of acute or chronic pancreatitis, tracking the Wirsung duct within the scleral and calcified mass of pancreatic tissue, through an ultrasound guided puncture, as well as in locating pancreatic cystic masses, determining the optimal puncture or pericystic-digestive drainage areas. Intraoperative ultrasound is an inexpensive, easy method, which allows real time exploration throughout the entire surgical process of hepato-bilio-pancreatic lesions, aiding the surgeon in modifying decisions regarding the intervention and preventing complications.
Key words: ultrasound, intraoperative, hepato-bilio-pancreatic tract

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