LIVER AND STOMACH COLLATERAL BLOOD SUPPLY AFTER DISTAL PANCREATECTOMY WITH CELIAC ARTERY RESECTION. IO US AND ICG GASTROSCOPY ARE MORE USEFUL TOOLS THAN PREOP COMMON HEPATIC ARTERY OCCLUSION: EXPERIENCE OF 115 CHA CLAMPING AND 26 DP CARS

Egorov V. I., Petrov R. V., Zhurina Ju. V., Grigorievsky M. V.

Bakhrushin Brothers Moscow City Hospital, Russia
egorov12333@gmail.com

Key words: *liver, blood supply, distal pancreatectomy, cancer*

Background. Distal pancreatectomy with celiac artery resection (DPCAR) is in use for borderline-resectable pancreatic cancer. It is believed that considerable reduction of the liver arterial supply after DPCAR may cause severe liver ischemia. Decision to reconstruct CHA or left gastric has to be justified.

Aim. To study stomach's and liver's collateral arterial supply after common (CHA and celiac artery (CA) temporary occlusion.

Material and Methods. Arterial anatomy, diameters of CHA, proper hepatic, gastroduodenal and pancreatoduodenal arcades (PDA) were registered before surgery in 115 consecutive patients with pancreatic body/tail cancer (n36), gastric cancer with pancreatic involvement (n30) and liver tumors (n45) by CT. For DPCAR (n26) patients ICG gastroscopy or CT were performed during or after surgery. Arterial blood flow in the liver and mean systolic velocity in hepatic arteries before and after clamping were measured intraoperatively by US.

Results and Discussion. Classical arterial anatomy was identified in 67%. Pulse disappeared in 9 (8%) cases after clamping of CHA, RGEA and aLHA/rLPA. Collateral arterial blood flow in the liver parenchyma was preserved in all cases. DPCAR led to increase of GDA, PDA and RGEA blood flow in 1–12 times; PDA were detected only once before DPCAR. Gastric ischemia was revealed in four and liver ischemia in 0 cases.

Conclusions. 1. IOUS is a reliable modality for intraoperative assessment of liver arterial blood supply during DPCAR. 2. Gastric ischemia is much more frequent event than liver ischemia after CA occlusion. IO ICG gastroscopy can be the option for the reconstruction of left gastric artery. 3. CHA occlusion before DPCAR is unnecessary procedure.

MINIMALLY INVASIVE TUNNELING TECHNIQUE FOR BONE HARVESTING

Eisenbraun O., Tarasenko S., Shehter A.

Sechenov First Moscow State Medical University, Moscow, Russia
dr.eisenbraun@mail.ru

Key words: *tunnel technique, bone augmentation, bone autograft, minimally invasive technique, «MicroSaw» technique*

Aim. The aim of our study was to evaluate the effect of the atraumatic «MicroSaw» technique and the Tunnel Technique for bone osteotomy and autogenous bone grafting from retro-molar site used for bone augmentation prior to dental implant surgery.

Material and Methods. Forty free (43) partially edentulous patients with alveolar bone atrophy were enrolled in our clinical study and went through surgery. Osteotomies of the jaws were made using thin diamond saws «MiscoSaw» (Stoma, Germany), since these are the finest modern saws. The autografts were obtained from the retromolar site of the lower jaw. The bone wound of the donor site was filled with a blood clot and sutured with single sutures. The bone blocks were cut into thin cortical plates. Bone augmentation in the atrophy area was made both in height and width, using thin bone plates to create the contours of bone tissue. Autogenous bone chips were placed between the plates. Soft tissue edema, pain syndrome, wound healing time were clinically evaluated after the surgery. Four months later a bone column was taken from the implant site for its histological structure analysis. The bone tissue of the autograft was examined 4 months after bone augmentation.

Results and Discussion. The time of bone block grafting procedure while using the «MicroSaw» technique is significantly reduced due to high speed of diamond disk rotation. Bone cut has a negligible thickness, which minimizes bone trauma. Patients who underwent bone augmentation performed with the help of the «MicroSaw» technique noted a comfortable postoperative period and minimal postoperative edema. Patients rarely took painkillers. Postoperative wounds in the donor site healed without complications, the stitches were removed within 10.0±3.0 days, depending on bone augmentation method. There was no evidence of loss of sensitivity either of the lip or chin. No cases of hematomas or purulent inflammation were reported. The histo-