EP-53

Simultaneous Ipsilateral Dual Embolization (transarterial chemoembolization with degradable starch microspheres and portal vein embolization) of the liver- “SIDE” technique for preoperative augmentation of future liver remnant (FLR) in patients with solid liver malignancies

Oleksandr KORSHAK^{*1,3}, Andrii ZHYLENKO¹, Denis FEDOROV¹, Oleksandr HRINENKO¹, Oleksandr OSTAPYSHEN¹,
Maria STASSIUK³, Vadim KONDRATIUK³, Andriy HUSIEV¹, Oleksiy POPOV¹, Vlad KROPELNYTSKYI², Myhaylo KOSTYLEV³

¹Department of Liver Surgery and Liver Transplantation, National Institute of Surgery and Transplantology, Kyiv, Ukraine

²Department of Pathology, National Institute of Surgery and Transplantology, Kyiv, Ukraine

³Department of Radiology, National Institute of Surgery and Transplantology, Kyiv, Ukraine

Introduction: Portal vein embolization (PVE) is gold standard strategy to increase future liver remnant (FLR). Up to 30% of patient with liver malignance still couldn't underwent surgery after PVE due to tumor progression and/or insufficient FLR regeneration during waiting period.

Methods: Nine patients with colorectal liver metastases (CRLM) and small FLR, in close proximity to FLR critical structures (portal and/or hepatocaval confluence), having more than three criteria of Fong Clinical Risk Score for CRLM were approved by Ethical Committee for Simultaneous PVE and Transarterial Chemoembolization with Degradable Starch Microspheres (DSM-TACE). For those patients, standard PVE was simultaneously followed by oxaliplatin based DSM-TACE with short-term embolic material of the whole tumor bearing liver to be resected that allowed to achieve both tumor control and postembolic infarction in liver to be removed, as a trigger of increased FLR regeneration, without biliary tree damage. Results were compared with 23 patients in control group after standard PVE.

Results: Unprecedented FLR regeneration with kinetic growth rate 23.5 cc/day (range from 17.6 to 57.25 cc/day) was observed enabling extended hepatectomies within 2 weeks compared with 5 weeks waiting period in control group. In all CRLM about 60% (range from 40% to 90%) necrosis was achieved. There was no severe morbidity (including posthepatectomy liver failure) and mortality.

Conclusions: We propose method of preoperative FLR adaptation which is not only second to none in the achieving liver regeneration rate but also is the only one that allows tumor control targeting both main reasons for patient dropout during waiting period for FLR regeneration.

Corresponding Author: Oleksandr KORSHAK (akorshak@ukr.net)

Presenter: Oleksandr KORSHAK (akorshak@ukr.net)

Copyright © The Korean Association of Hepato-Biliary-Pancreatic Surgery

This is an Open Access article distributed under the terms of the Creative Commons Attribution Non-Commercial License (<http://creativecommons.org/licenses/by-nc/4.0>) which permits unrestricted non-commercial use, distribution, and reproduction in any medium, provided the original work is properly cited.