

**Intrahepatic cholangiocarcinoma – a rare indication for liver transplantation. Case report and review of the literature**

D. Hrehoreț<sup>1</sup>, S. Alexandrescu<sup>1</sup>, R. Grigorie<sup>1</sup>, V. Herlea<sup>2</sup>, R. Anghel<sup>3</sup>, I. Popescu<sup>1</sup>

<sup>1</sup>"Dan Setlacec" Center of General Surgery and Liver Transplantation, Fundeni Clinical Institute, "Carol Davila" University of Medicine and Pharmacy, Bucharest, Romania

<sup>2</sup>Department of Pathology, Fundeni Clinical Institute, Bucharest, Romania

<sup>3</sup>"Alexandru Trestioreanu" Oncological Institute, "Carol Davila" University of Medicine and Pharmacy, Bucharest, Romania

**Abstract**

*Background:* While hepatocellular carcinoma is a common indication for liver transplantation, intrahepatic cholangio-carcinoma represents a controversial indication for this procedure, due to lower disease-free and overall survival rates achieved by liver transplantation in such patients. Hence, in the last years, few centers reported satisfactory survival rates after liver transplantation for cholangiocarcinoma, in highly selected groups of patients. Herein we present the clinico-pathological characteristics, the pre- and postoperative management and the favorable outcome of a patient under-going liver transplantation for an unresectable intrahepatic cholangiocarcinoma. We consider that reporting the patients with such favorable outcomes is useful, since collecting the data presented by different centers may contribute to identification of a selected group of patients with cholangiocarcinoma who may benefit from liver transplantation.

*Case report:* A 62-year old female patient with a primary liver tumor developed on HBV liver cirrhosis, was admitted in our center for therapeutical management. Since preoperative work-up suggested that the tumor is an unresectable hepatocellular carcinoma (due to its location and underlying liver disease), we decided to perform liver transplantation. The pathological examination of the explanted liver revealed that the tumor was a stage I intrahepatic cholangiocarcinoma. The postoperative course was uneventful, and in present, 15 months after transplantation, the patient is alive, without recurrence.

*Conclusions:* Liver transplantation may represent a valid therapeutical option in selected patients with intrahepatic cholangiocarcinoma. Patients with early stage intrahepatic cholangiocarcinomas unresectable due to the underlying liver cirrhosis seem to benefit mostly by liver transplantation. Further studies are needed to identify the favorable prognostic factors in order to select the most appropriate candidates for liver transplantation. The most suitable immunosuppressive and (radio)chemotherapeutic regimens should be identified in the future, in order to improve the disease-free and overall survival rates of the patients undergoing liver transplantation for intrahepatic cholangiocarcinoma.

**Key words:** cholangiocarcinoma, liver transplantation, liver cirrhosis, chemotherapy

Corresponding author: Irinel Popescu, MD, PhD, FACS

Professor of Surgery

"Carol Davila" University of Medicine and Pharmacy, Bucharest

"Dan Setlacec" Center of General Surgery and Liver Transplantation

Fundeni Clinical Institute

Fundeni Street no 258, 022328, Bucharest, Romania

Phone / Fax: +4 (021) 3180417,

E-mail: irinel.popescu220@gmail.com