

**Primary Hepatic Lymphoma Resected by ALPPS Procedure (Associating Liver Partition and Portal Vein Ligation for Staged Hepatectomy)**

Sorin Alexandrescu<sup>1,2</sup>, Luminita Stoica<sup>1</sup>, Razvan Grigorie<sup>1</sup>, Dana Tomescu<sup>2,3</sup>, Camelia Dobrea<sup>2,4</sup>, Irinel Popescu<sup>1,2</sup>, Doina Hrehoret<sup>1</sup>

<sup>1</sup>Dan Setlacec Center of General Surgery and Liver Transplantation, Fundeni Clinical Institute, Bucharest, Romania

<sup>2</sup>Carol Davila University of Medicine and Pharmacy, Bucharest, Romania

<sup>3</sup>Dan Tulbure Center of Anesthesiology and Intensive Care, Fundeni Clinical Institute, Bucharest, Romania

<sup>4</sup>Department of Hematology, Fundeni Clinical Institute, Bucharest, Romania

**ABSTRACT**

**Background:** Primary hepatic lymphoma represents a very rare location of non-Hodgkin lymphomas, whose treatment consists of liver tumor resection followed by chemotherapy. In some cases, however, upfront hepatectomy is not feasible due to insufficient volume of the liver remnant.

**Case report:** An ALPPS (Associating Liver Partition and Portal Vein Ligation for Staged Hepatectomy) procedure was performed in a patient with a large primary hepatic lymphoma, whose estimated liver remnant represented only 13% of total liver volume, it was performed. During the first stage, we performed right portal branch ligation and in situ splitting, without right bile duct ligation. After the first stage, the patient did not develop biliary fistula, ascites or sepsis. The volume of segments 2 and 3 increased by 98% after eleven days, making possible subsequent resection of the tumor by a right trisectionectomy. The patient did not develop any complication, being discharged 9 days after the second stage of ALPPS. Postoperatively, the patient underwent chemotherapy, being disease-free at 13 months following operation.

**Conclusion:** This is the first patient presented in the literature who underwent ALPPS for resection of a primary hepatic lymphoma. This type of tumor could be managed by ALPPS, with low morbidity and mortality rates.

**Abbreviations:** ALPPS – Associating Liver Partition and Portal Vein Ligation for Staged Hepatectomy, PHL – primary hepatic lymphoma, PVE – portal vein embolization, PVL – portal vein ligation, FLR – future liver remnant

**Key words:** ALPPS, major liver resection, portal vein embolization, portal vein ligation, “two-stage” liver resection, primary hepatic lymphoma