

### **Duodenopancreatectomy for PDAC Associated with MALS: A Case Report**

Emil Moiş<sup>1,2</sup>, Cristina Paula Pop<sup>2</sup>, Florin Graur<sup>1,2</sup>, Septimiu Moldovan<sup>2</sup>, Ion Cosmin Puia<sup>1,2</sup>, Claudiu Zdrehuş<sup>1,2</sup>, Ioan Mureşan<sup>3</sup>, Nadim Al Hajjar<sup>1,2</sup>

<sup>1</sup>Iuliu Haţieganu University of Medicine and Pharmacy, Cluj-Napoca, Romania

<sup>2</sup>Department of Surgery, Regional Prof. Dr. Octavian Fodor Institute of Gastroenterology and Hepathology, Cluj-Napoca, Romania

<sup>3</sup>Cardio-Vascular Surgery Department, Nicolae Stăncioiu Heart Institute, Cluj-Napoca, Romania

#### **Abstract**

*Introduction:* Pancreatic ductal adenocarcinoma (PDAC) is an aggressive form of pancreatic malignancy which occurs in over 90% of such cases. Pancreaticoduodenectomy (PD) is used with a curative purpose for localized PDAC.

*Case presentation:* A 68-year-old woman presented to our service through a transfer from another service, to be investigated and treated for a head of the pancreas tumor in a tertiary referral hospital. After a complete clinical and paraclinical evaluation, the patient was diagnosed with a PDAC and also with a median arcuate ligament syndrome (MALS). The surgical treatment was considered adequate, therefore, the patient underwent a PD with transmesocolic hepatico-jejunosotomy, pancreaticogastric anastomosis, precolic end-to-side gastrojejunosotomy, Witzel jejunosotomy and with the help of the cardiovascular surgery team from the Heart Institute, Cluj-Napoca, an aorto-hepatic bypass using saphenous vein graft was performed.

*Conclusion:* Bypass was essential because the blood flow in the proper hepatic artery was not restored after sectioning the median arcuate ligament and clamping the gastroduodenal artery. The patient had a favorable outcome. The particularity of the present case consists of the complete occlusion of the celiac trunk by MALS and the total vascularization of the supramesocolic organs due to the superior mesenteric artery through the gastroduodenal artery.

**Key words:** pancreatic ductal adenocarcinoma, median arcuate ligament syndrome