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Using Molecular Subtyping of Pancreatic Ductal Adenocarcinoma for Multimodal Treatment Selection in Resectable Disease

Simona O Dima[1,2], Traian Dumitrascu[1,3], Irinel Popescu[1,2], Dan G Duda[4]
[1]Center of Digestive Diseases and Liver Transplantation, Fundeni Clinical Institute, Bucharest, Romania
[2]Center of Excellence for Translational Medicine, Fundeni Clinical Institute, Bucharest, Romania
[3]Department of Surgery, Carol Davila University of Medicine and Pharmacy, Bucharest, Romania
[4]Steele Laboratories for Tumor Biology, Department of Radiation Oncology, Massachusetts General Hospital and Harvard Medical School, Boston, Massachusetts, USA

Abstract
Pancreatic ductal adenocarcinoma (PDAC) is characterized by high heterogeneity; thus, even after a curative intent surgery, there is significant variability in the survival of patients, reflecting different biological behaviors. The selection of proper, personalized therapy for each patient with resectable PDAC, in multimodal therapy, by an experienced multidisciplinary team is of utmost importance to get maximal clinical benefit avoiding potentially harmful treatments. Identifications of patients with resectable PDAC that would benefit from surgical resections in the context of multimodal therapy remain a topic of interest for clinical practice. To improve PDAC patient outcomes, a significant step forward would be the integration of the molecular sub-types in the clinical decision-making between upfront surgery versus neoadjuvant treatment. Successful integration of the preoperative knowledge of the subtype of PDAC can properly guide this treatment selection to further improve patient outcomes. In this review, we present an overview of the current knowledge on the role of molecular subtyping in surgical decisions for PDAC patients.
Key words: pancreatic ductal adenocarcinoma, molecular sub-types, neoadjuvant therapies, survival