

AB063. P035. Radiofrequency ablation and irreversible electroporation in locally advanced pancreatic cancer: competitive or complementary treatment modalities?

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Background: Radiofrequency ablation (RFA) and irreversible electroporation (IRE) are both local ablative strategies for the treatment of locally advanced pancreatic cancer (LAPC). It remains unclear to what extent IRE and RFA are competitive or complementary modalities. This study aims to assess the degree of overlap and exclusiveness in treatment eligibility for both techniques in a consecutive cohort of patients with LAPC.

Methods: A post-hoc analysis of patients with Response Evaluation Criteria in Solid Tumors (RECIST)-stable LAPC after 2 months induction chemotherapy previously registered in the prospective IMPALA cohort from September 2013 to March 2015 was performed. A literature

search was done in order to identify original articles reporting on eligibility criteria for RFA and IRE. These criteria were used to reassess the treatment eligibility for both techniques.

Results: A total of 58 patients were included of which 53 (91%) were considered eligible for local ablative therapy. Of these, 36 patients (62%) were eligible for RFA and 44 (76%) for IRE with 27 patients (47%) eligible for both techniques and thus 26 patients (45%) eligible for one of both strategies. The main reason for ineligibility for RFA was perivascular tumor growth in 13/22 ineligible patients (59%) and tumors too large for IRE in 9/14 IRE ineligible patients (64%). Mean tumor diameter was significantly different between groups eligible for solely RFA, eligible for both and eligible for solely IRE [58 mm, standard deviation (SD) =8 mm; 43 mm, SD =12 mm and 33 mm, SD =15 mm respectively; $P < 0.001$].

Conclusions: The vast majority of patients with LAPC are eligible for either IRE or RFA. IRE and RFA are equally complementary as they are competitive for LAPC. For larger tumors RFA appears to be more suitable, where for smaller perivascular tumors IRE seems more appropriate.

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