

SMOKING IMPAIRS THE RESPONSE TO FOLFIRINOX IN PATIENTS WITH PANCREATIC DUCTAL ADENOCARCINOMA: RESULTS FROM CLINICAL, TRANSCRIPTOMICS AND IN VITRO ANALYSES

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UEG Week Berlin 2025

Poster

Pancreas

October 7, 2025

In a prospective study of 326 PDAC patients, current smoking was independently associated with reduced disease control, shorter progression-free survival, and shorter overall survival, particularly among those receiving Folfirinox chemotherapy.

KEY POINTS

- Current smokers had significantly lower 6-month disease control rates compared to never-/ex-smokers (57.9% vs 70.4%, $p=0.05$), with current smoking independently associated with lack of disease control ($OR=1.99$, $p=0.01$).
- The negative effect was most pronounced for Folfirinox-treated patients, where current smokers achieved 46.2% disease control versus 75.6% for non-current smokers ($p=0.007$).
- Current smokers experienced shorter progression-free survival (5 vs 13 months, $HR=1.79$, $p=0.01$) and overall survival (24 vs 34 months, $HR=1.93$, $p=0.04$) at adjusted multivariable analysis.
- Transcriptomic analysis of 84 tumor samples showed current smokers had higher prevalence of basal-like subtype (50% vs 15%, $p=0.03$), lower GATA6 expression (3.27 vs 3.92, $p=0.03$), and activation of MAPK, hypoxia, and epithelial-mesenchymal-transition pathways.
- In vitro experiments with CAPAN-1 cells demonstrated reduced response to Folfirinox when combined with nicotine compounds, but not with gemcitabine.

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