Comparison of neoadjuvant FOLFIRINOX alone vs FOLFIRINOX + stereotactic body radiation as immune-modulators of the pancreatic adenocarcinoma microenvironment

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Abstract

Background
Pancreatic cancer: poor prognosis and limited treatment options
- Estimated 40,000 deaths in 2018 (United States of America) (Siegel et al., 2018)
- Surgery is the only curative option in the United States (Siegel et al., 2018)
- Surgery is curative in approximately 50% of patients
- Survival of patients with advanced disease is limited (Siegel et al., 2018)

These factors include:
- Surgery is successful in only a few patients
- Surgery is associated with high mortality rates
- It contains numerous immunologically relevant populations

Hypothesis
Combination FOLFIRINOX + radiotherapy is associated with long-term alterations in the abundance of immunologically relevant transcripts within PDAC tumors

Results
Neoadjuvant therapy is associated with differences in signaling & checkpoint expression in tumor-rich regions

Conclusions
Significant differences in immune cell composition and phenotype were associated with neoadjuvant therapy in immune cell-rich regions

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