ABSTRACT SUBMISSION

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SELECTIVE EFFECT OF UKRAIN IN PRIMARY PANCREATIC TUMOR CELL CULTURES

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Introduction: Current therapy for PDAC is surgery followed by adjuvant radiotherapy and chemotherapy for early-stage and palliative chemotherapy for advanced disease. Gemcitabine is the standard drug in both adjuvant and palliative treatment. A new drug, NSC-631570 (Ukrain), used for the palliative cure of unresectable PDAC, showed greater median survival in combination with gemcitabine with respect to gemcitabine alone (10.4 months vs 5.2 months; p

Objectives: The goal was to study the cytotoxic effects of Ukrain in Primary Pancreatic Cancer Cell Lines (PPTCCs) and short term culture of fibroblasts derived from PDAC (F-PDAC).

Materials & methods:

In this study we tested the effects of Ukrain in 4 PPTCCs and 2 F-PDAC. Cytotoxicity was assessed by the CellTiter 96 kit (Promega, Madison, MA) based on the cellular metabolism of the tetrazolium compound XTT. Variations of medium Ukrain concentrations were evaluated by Ukrain fluorescence property using the AlphaDigiDoc software and UV light excitation (ULA-DC test).

Results:

The cytotoxic effects of Ukrain in PPTCCs were higher than those observed in F-PDAC (20% alive cells vs 80% alive cells, 10 μM [Ukrain]; $p<0.05$). Indeed the ULA-DC test revealed that PPTCCs had higher drug intake than F-PDAC ($p<0.001$).

Conclusion:

These data show a selective effect on PPTCCs and this may be related to a different transport system or related to a higher metabolism of the drug in pancreatic cancer cells.