

THE CLOSER, THE BETTER: INTRATUMORAL DELIVERY OF A THERMORESPONSIVE GEMCITABINE-LOADED HYDROGEL IN PRECLINICAL PANCREATIC CANCER MODELS

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Poster

Pancreas

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A novel thermosensitive hydrogel loaded with gemcitabine demonstrated complete survival in a human xenograft model of pancreatic ductal adenocarcinoma through intratumoral delivery at doses approximately 125-fold higher than systemic administration.

KEY POINTS

- In a human patient-derived xenograft model, intratumoral gemcitabine-loaded ChemoGel achieved 100% survival compared to control groups in which all mice reached humane endpoint.
- The thermosensitive hydrogel formulation enabled intratumoral injection of approximately 125 times the dose achievable with systemic gemcitabine administration.
- Both unloaded and gemcitabine-loaded ChemoGel were safe and well-tolerated in vivo with no off-target toxicity to vital organs or haematological systems.
- Preliminary data shows ChemoGel-gemcitabine depots are surrounded or infiltrated with fibroblasts, macrophages, and other immune cells; further investigation of tumor microenvironment dynamics is ongoing.
- This preclinical research may be most relevant to researchers and clinicians interested in localized endoscopic delivery strategies for pancreatic ductal adenocarcinoma.

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