PanCO: Results of a single-arm pilot study of ^{32}P microparticles in unresectable locally advanced pancreatic adenocarcinoma with gemcitabine/nab-paclitaxel or FOLFIRINOX chemotherapy[1]

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Study Objective

To further investigate the safety, efficacy, feasibility and performance of the OncoSil™ device when implanted intratumourally using EUS in a patient population undergoing standard chemotherapy for unresectable LAPC.

Study Design

Key Eligibility Criteria

- Histologically or cytologically proven pancreatic adenocarcinoma
- Unresectable LAPC
- Target tumour diameter 2-6cm
- ECOG Performance Status 0 to 1
- No distant metastases
- No prior radiotherapy or chemo-therapy for pancreatic cancer

Location

International, multicentre pilot study with 10 sites in 3 countries:

- Australia
- Belgium
- UK

Data Collection/Follow-up

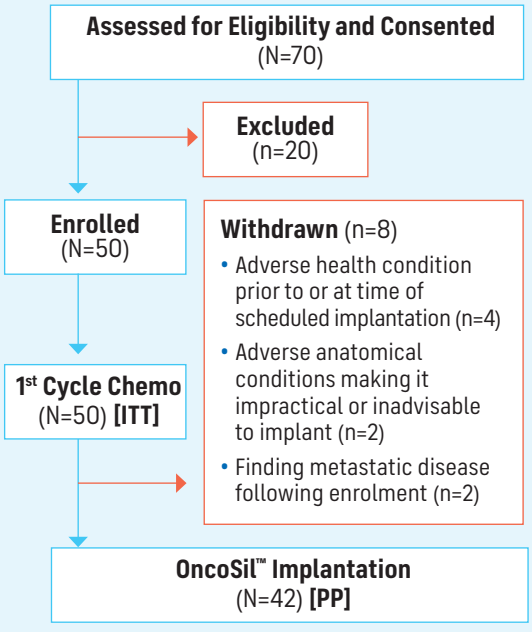
- SPECT-CT Bremsstrahlung imaging at ≤4 hours and day 7
- Blood and urine ^{32}P analysis
- 8 weekly CT – RECIST 1.1 and tumour volume*
- FDG-PET – Baseline and week 12*
- CA 19-9 tumour marker serial analysis

Treatment

^{32}P activity calculated from patients' tumour volume to deliver 100 Gy absorbed dose.

† By physician choice; per standard-of-care

Participant Flow



Baseline Characteristics

Demographic/Characteristic		n (%) ITT Cohort (N=50)
Age, years	Median (Range)	65 (42-84)
Sex	Male : Female	28 (56%) : 22 (44%)
Race:	White/Caucasian Asian Black/African American	40 (80%) 7 (14%) 3 (6%)
ECOG Performance Status 0 : 1		26 (52%) : 24 (48%)
CA 19-9, (U/mL) [n=49] Median (Range)		163 (1–6576)
Pancreatic tumour location Head : Body		42 (84%) : 8 (16%)
Target lesion longest diameter, cm* Median (Range)		4.5 (2.6-7.1)
Tumour volume, cc* Median (Range)		24.4 (7.9-68.7)
Study days to OncoSil™ implantation [n=42] Median (Range)		31 (21-77)
Chemotherapy	gemcitabine + nab-paclitaxel FOLFIRINOX	40 (80%) 10 (20%)

*By independent central reader analysis

Key Results

Safety and Tolerability (PP Cohort)

- 956 TEAEs reported; 139 were Grade ≥3
  No serious device or radiation-related toxicities were reported
- 289 TEAEs (30.2%) occurred pre-OncoSil™ implantation (25 Grade ≥3) vs. 667 TEAEs (69.8%) post-implant (114 Grade ≥3) [median follow-up: 1 vs. 31 months, respectively], with 41 vs. 609 attributed to the OncoSil™ device and/or implantation procedure vs. chemotherapy, respectively
- No increased incidence of grade ≥3 TEAEs pre-implantation vs. per cycle, overall and by key categories, post-implantation

OncoSil™ in combination with first-line chemotherapy for LAPC had an **acceptable safety profile** over a study timeframe (median 31.6 months)

Tumour Response (Best Response by Central Imaging Analysis, RECIST v1.1*^)

Best Response, Evaluable Patients	ITT Cohort (n=50)	PP Cohort (n42)
Complete Response [CR]**	0 (0%)	0 (0%)
Partial Response [PR]**	14 (29.8%)	13 (31.0%)
Stable Disease [SD]**	31 (66%)	29 (69.0%)
Progressive Disease [PD]**	2 (4.3%)	0 (0%)
Not evaluated	3	0
Overall Response Rate [ORR]	**14 (28.0%)**	**13 (31.0%)**
Disease Control Rate [DCR]	**45 (90.0%)**	**42 (100%)**

*By central image reader analysis. **Percentages based on the number of assessable study participants.
^Response before surgical resection.

Local Disease Control Rate ($LDCR_{16\ weeks}$) and Surgical Resection

Outcome	ITT Cohort (n=50)	PP Cohort (n=42)
$LDCR_{16\ weeks}$, n (%) [1° Efficacy Endpoint]	41 (82.0%)	38 (90.5%)
Rate of Surgical Resection with Curative Intent, n (%)	**10 (20.0%)**	**10 (23.8%)**
R0 Margins, n (%) vs. R1 Margins, n (%)	**8 (80.0%)** vs. 2 (20.0%)	**8 (80.0%)** vs. 2 (20.0%)
Median Progression-Free Survival (95% CI)	9.3 months (5.7-11.3)	9.3 months (5.8-11.3)
Median Overall Survival (95% CI)	**15.2 months** (11.3-18.8)	**15.5 months** (11.4-20.1)

33% patients
(14/42) were either surgically resected OR were technically sufficiently downstaged to be considered for resection*

23.8% patients
(10/42) were resected

- 9 patients received gemcitabine + nab-paclitaxel; 1 received FOLFIRINOX
- HPB surgeons noted reduction in the fibrosis of the tumours along blood vessels and favourable tissue planes
- 4 resected patients died (at 18.8-19.2 months from enrolment)
- **6 remained alive at 26.4-35.3 months post-enrolment (5 disease-free)**

*Four patients did not undergo surgery due to concomitant co-morbidities and/or other considerations (advanced age, patient choice).

Abbreviations:
CI: Confidence interval
ECOG: Eastern Cooperative Oncology Group
EUS: Endoscopic ultrasound
ITT: Intention-to-treat
LAPC: Locally advanced pancreatic cancer
NC: Not calculable
PD: Progressive disease
PP: Per protocol
TEAEs: Treatment-emergent adverse events

REFERENCES: 1. Ross PJ, Wasan HS, Croagh D et al. Results of a single-arm pilot study of 32^{P} microparticles in unresectable locally advanced pancreatic adenocarcinoma with gemcitabine/nab-paclitaxel or FOLFIRINOX chemotherapy. ESMO Open February 2022;7(1):100356. doi: 10.1016/j.esmoop.2021.
2. Ross PJ, Burnett C, Nikfarjam M et al. Comparison of Resected vs. Non-resected PanCO Study Patients with Unresectable Locally Advanced Pancreatic Cancer (uLAPC) Receiving ^{32} P-microparticles and Chemotherapy. Poster presentation PBP-006 E-AHPBA 2023, Lyon, France. https://doi.org/10.1016/j.hpb.2023.07.454.

INTENDED USE / INDICATIONS FOR USE: OncoSil™ is intended for intratumoural implantation into a pancreatic tumour via injection under endoscopic ultrasound guidance. OncoSil™ is indicated for the treatment of patients with locally advanced unresectable pancreatic cancer, in combination with gemcitabine-based chemotherapy.

This information is intended for healthcare professionals only. All medical treatments carry benefits and risks.
For safety related information, please refer to the OncoSil™ System Instructions for Use.

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