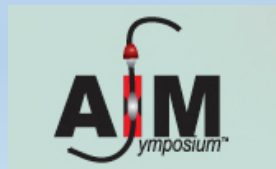


# Pancreatic Cancer: Chemoembolization Using A Double Balloon Catheter

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Division of VIR



2016

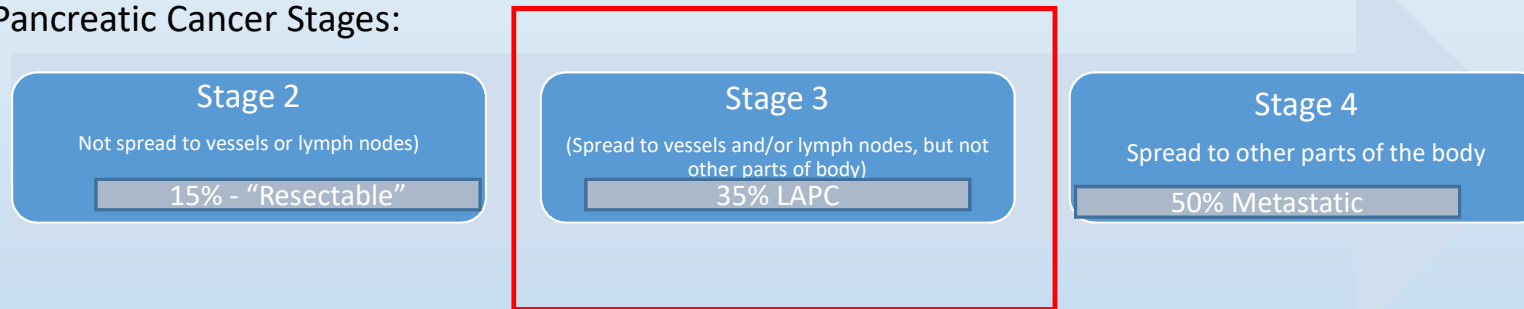
# Disclosures

- Post Market Registry Investigator

# Adenocarcinoma of the Pancreas

- 54,000 cases of pancreatic adenocarcinoma per year in US
- Only potential cure: resection

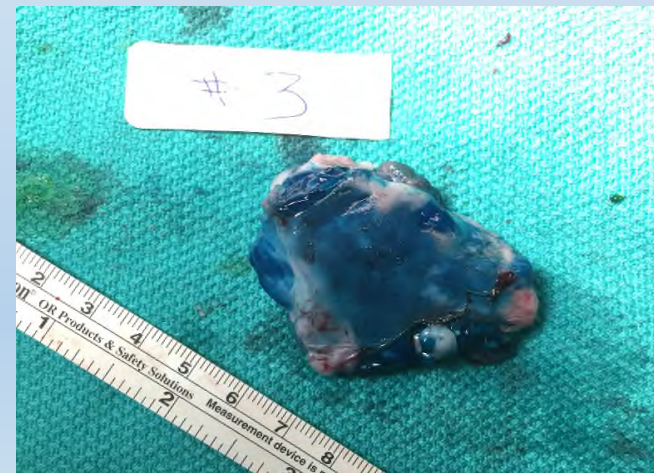
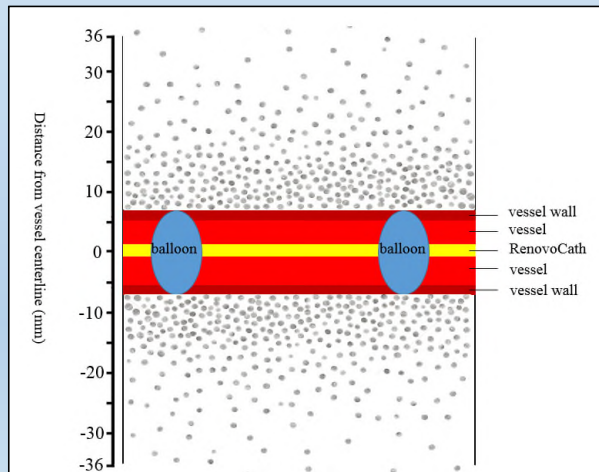
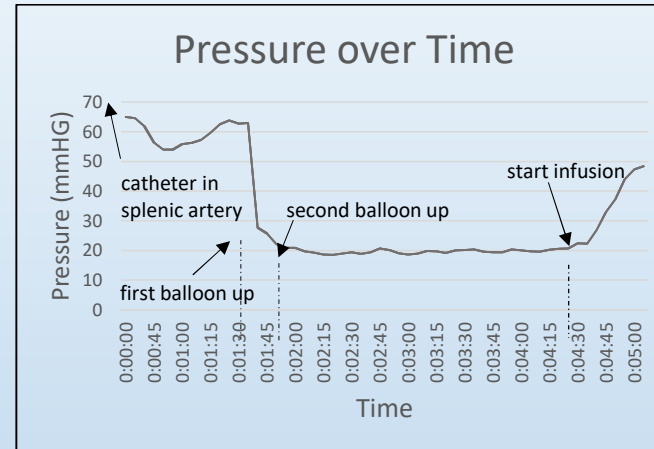
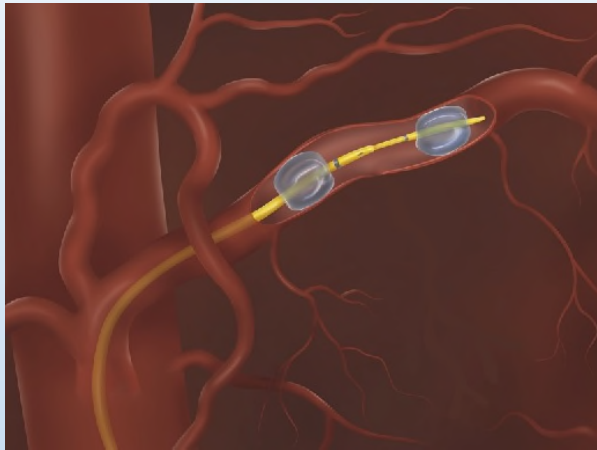
## Pancreatic Cancer Stages:

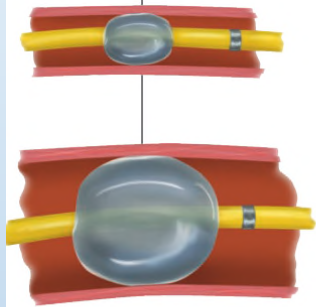
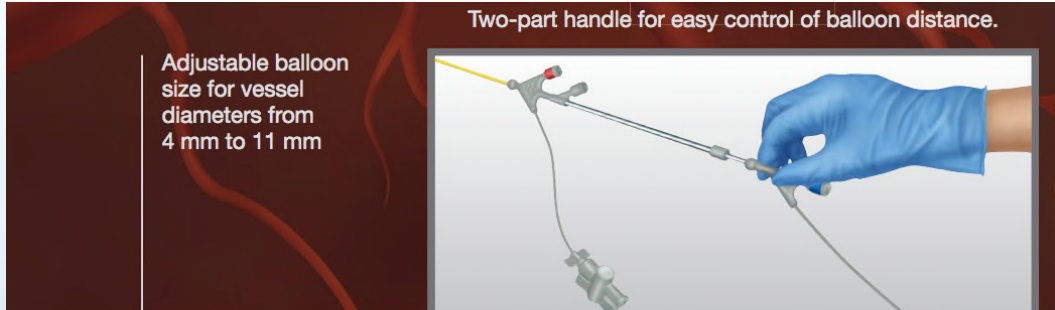


- Primary reason Locally Advanced Pancreatic Cancer (LAPC) not resectable: tumor involvement of celiac axis and SMA; can not get clean margin with resection
- Systemic gemcitabine is only guideline driven treatment with Class 1 evidence benefit; other treatment regimen extrapolated from studies of patients with stage 4 disease
- Therefore, LAPC patients undergo a potpourri of treatment options: systemic gemcitabine, combination chemo, chemo-radiation, research protocol, etc.



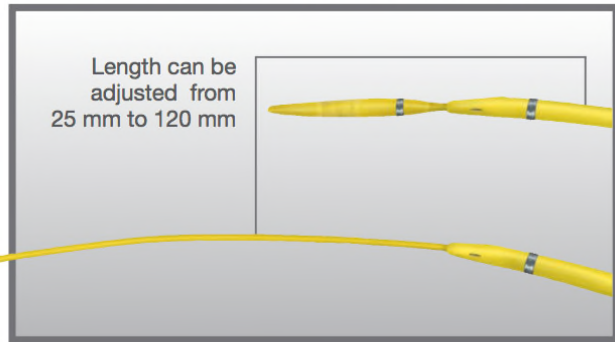
# Potential Solution:





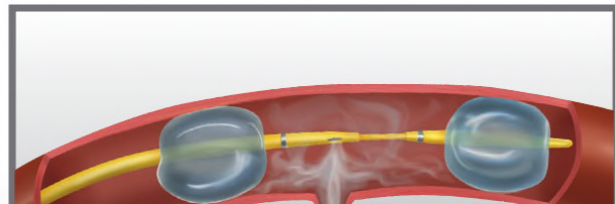
### VERSATILITY

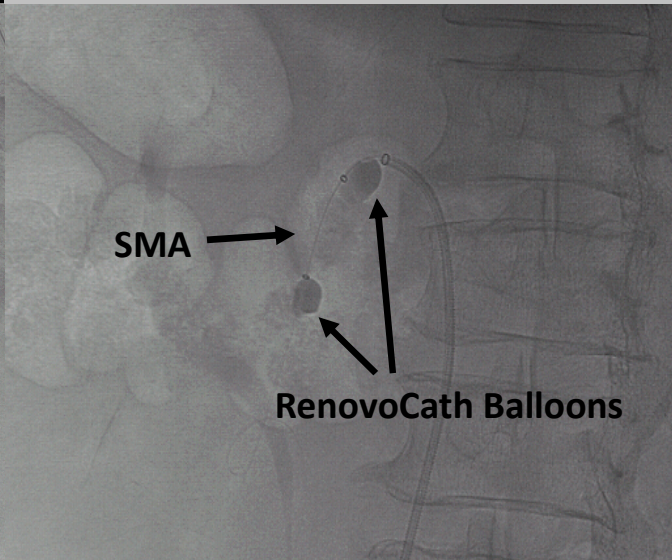
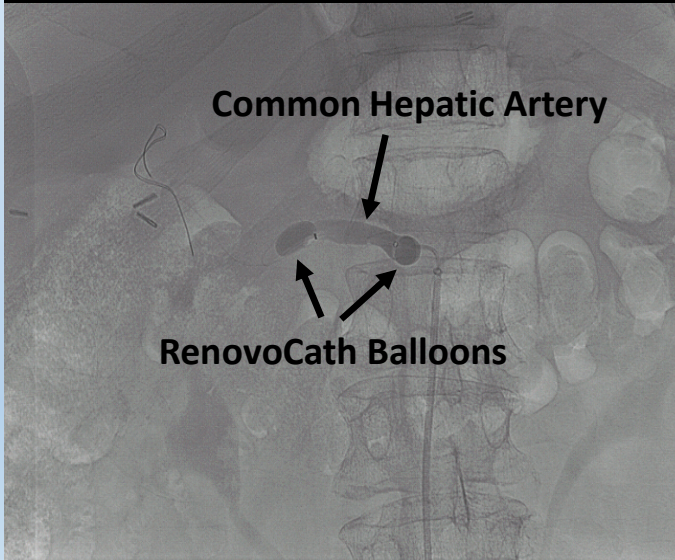
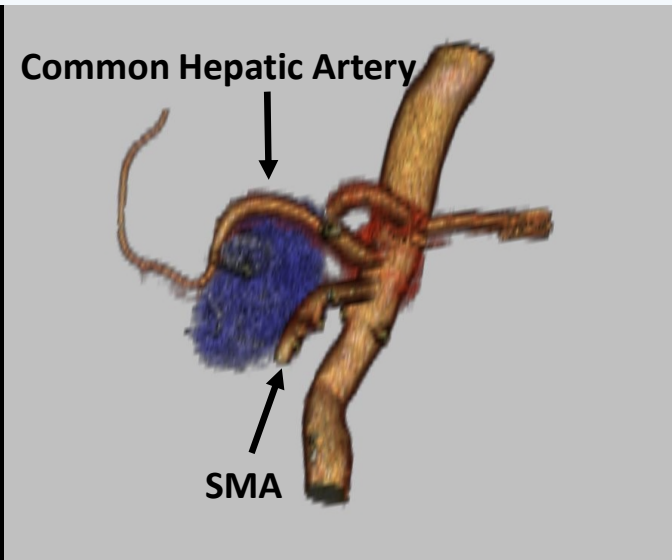
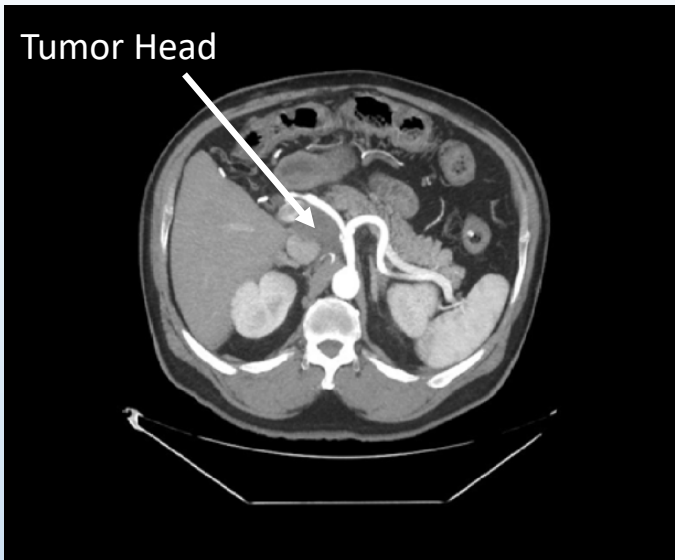
Operator controlled adjustable occlusion length.



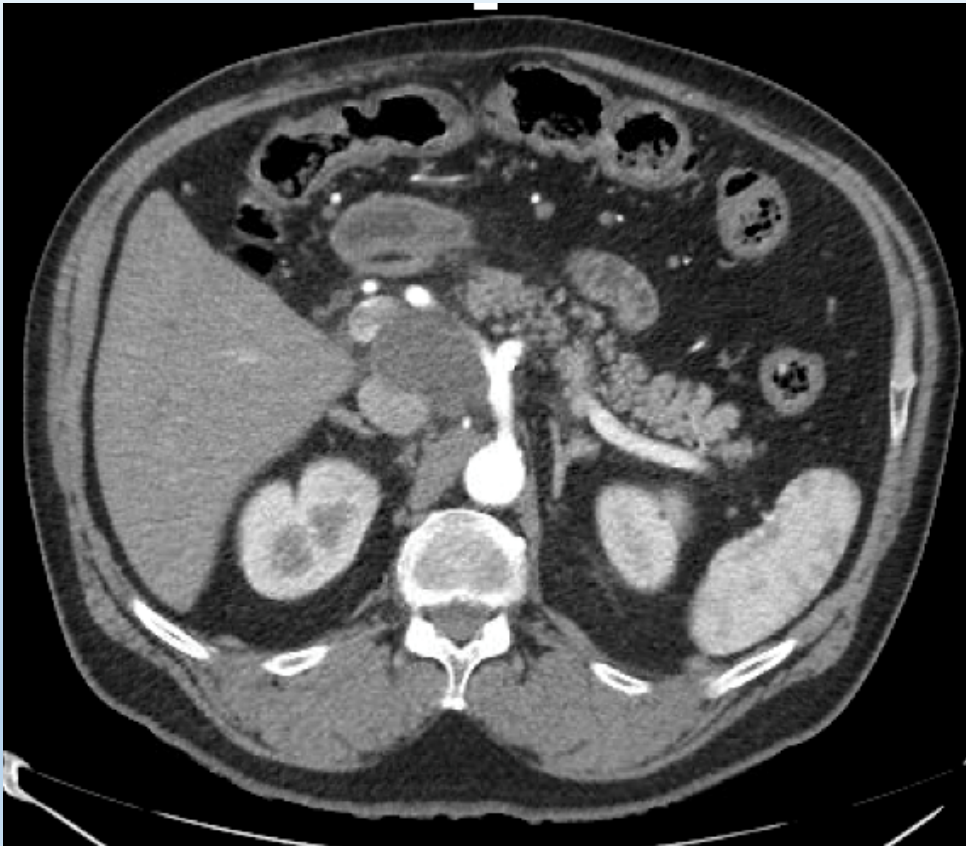
### TARGETED DELIVERY

Dual occlusion balloons for precise infusion. Closed seal system ensures infusate is confined between the balloons.





66 y/o M  
Pancreatic CA

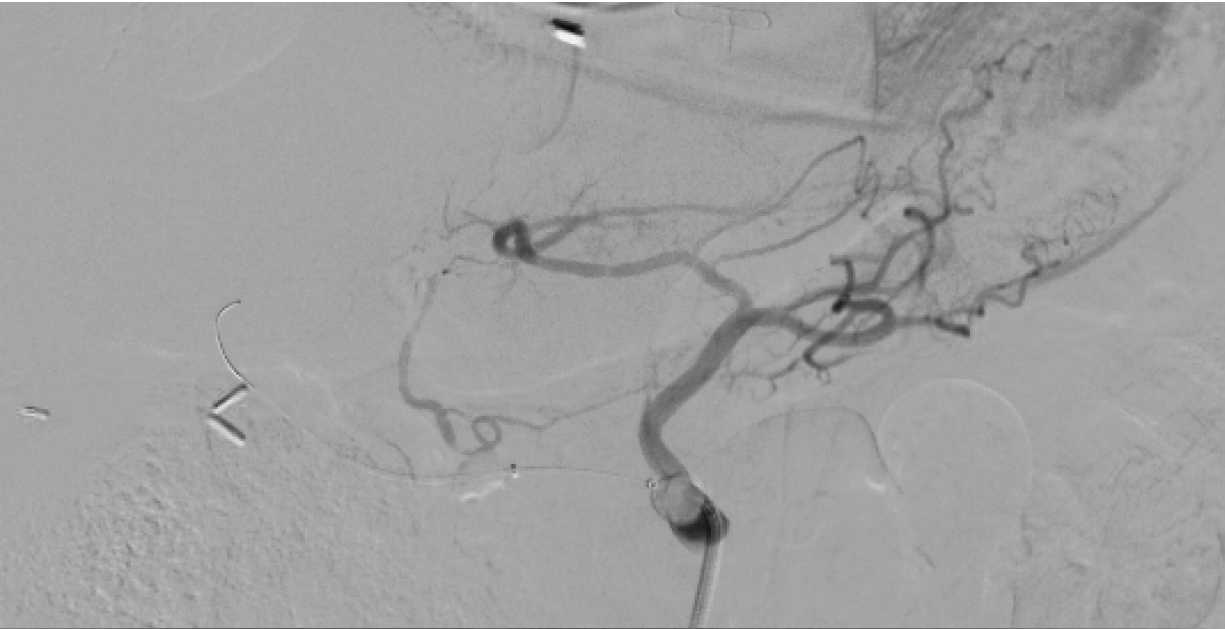


Post Systemic Chemo  
Continued growth

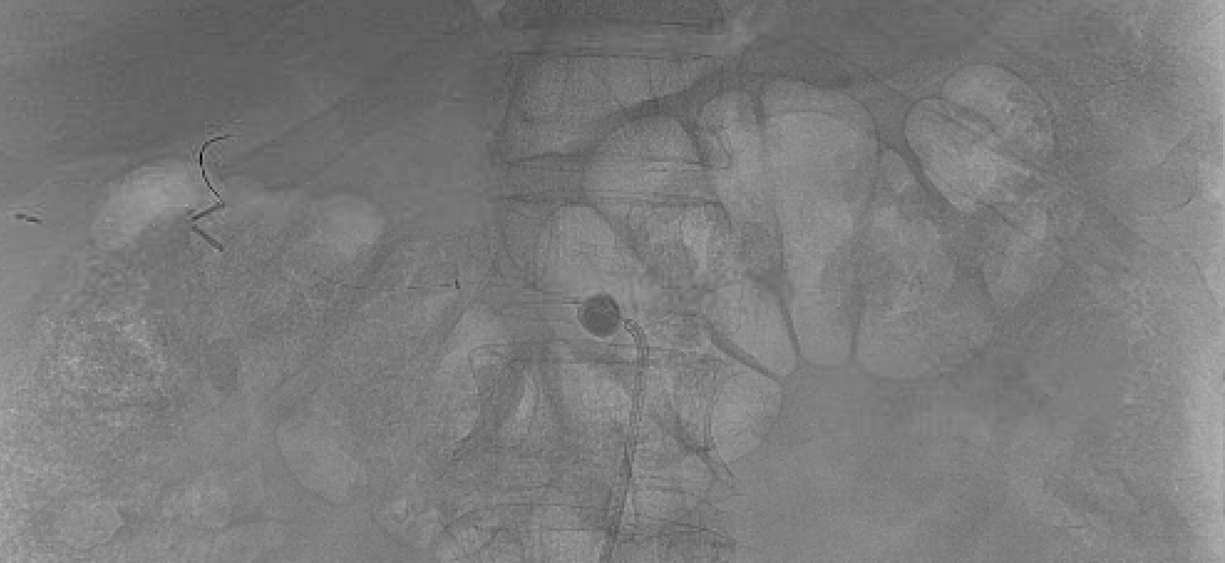


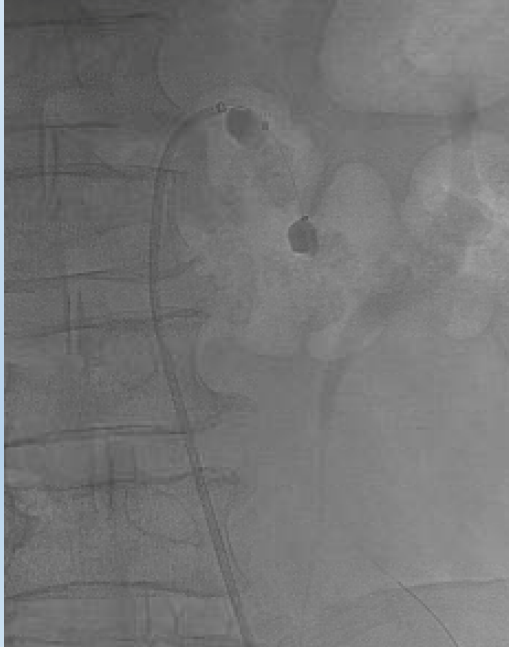
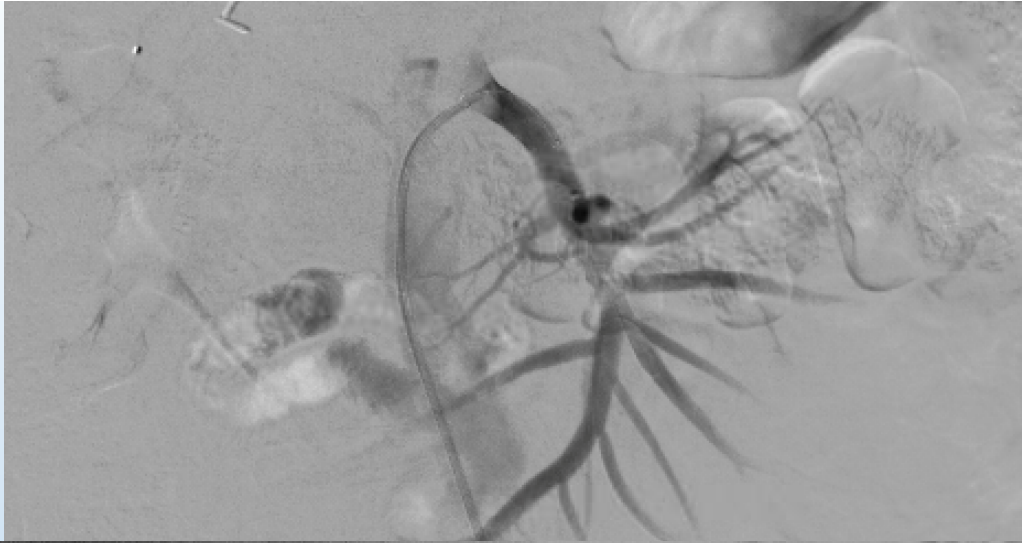


4 Treatments: Hepatic, SMA, Hepatic, SMA



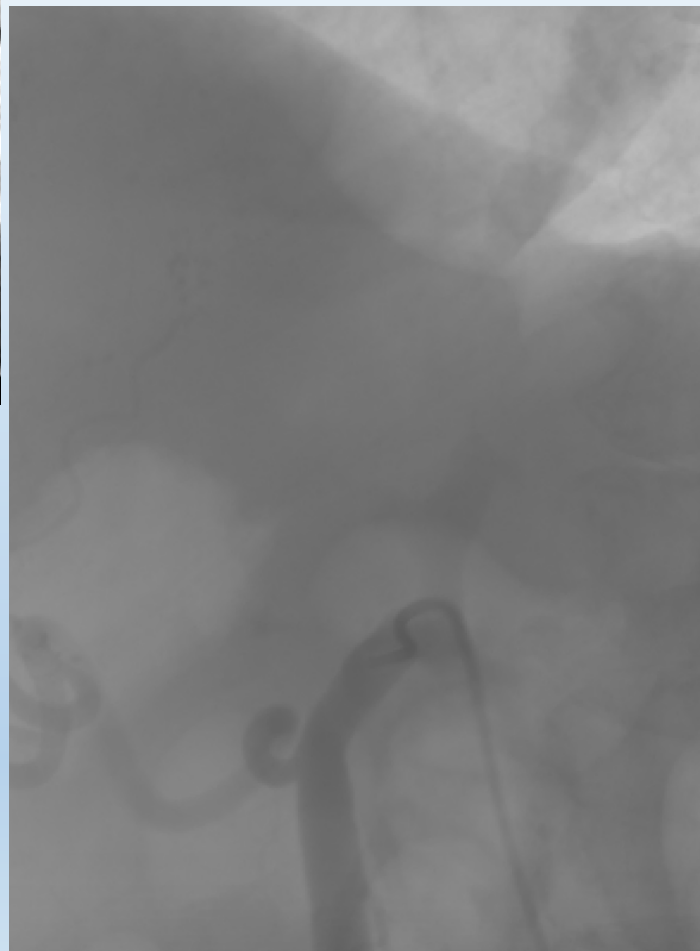
Infuse 100-120 cc at 6cc/Min



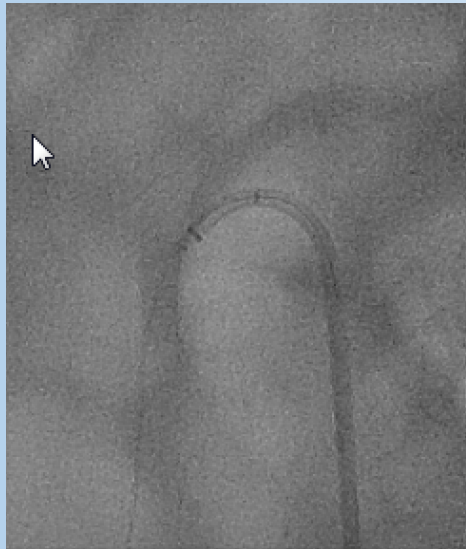
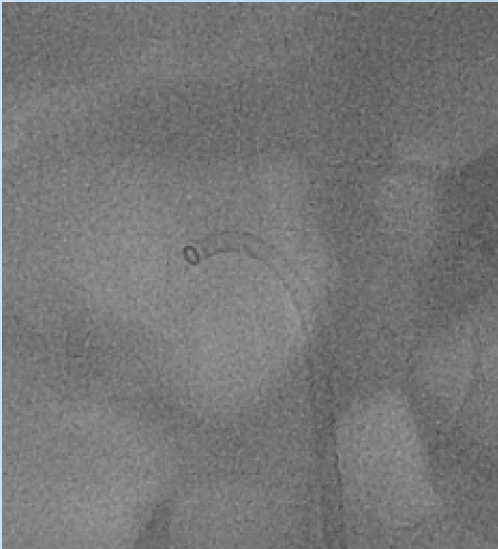
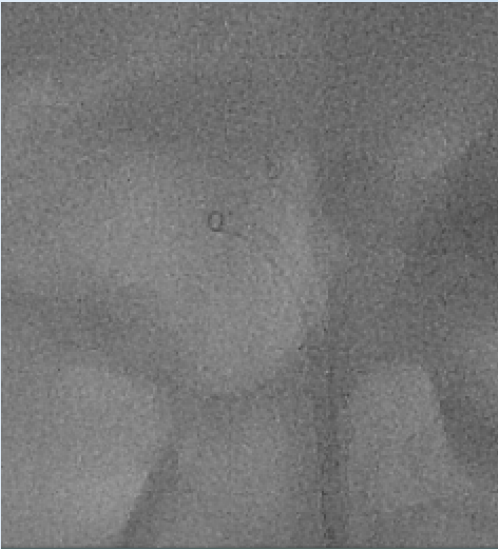
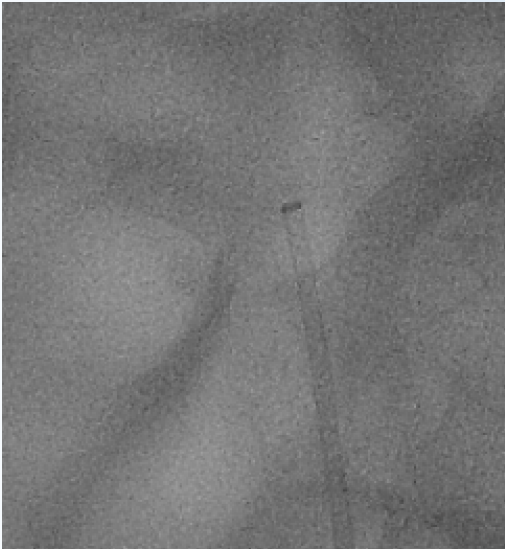


## Technical Considerations when using RenovoCath

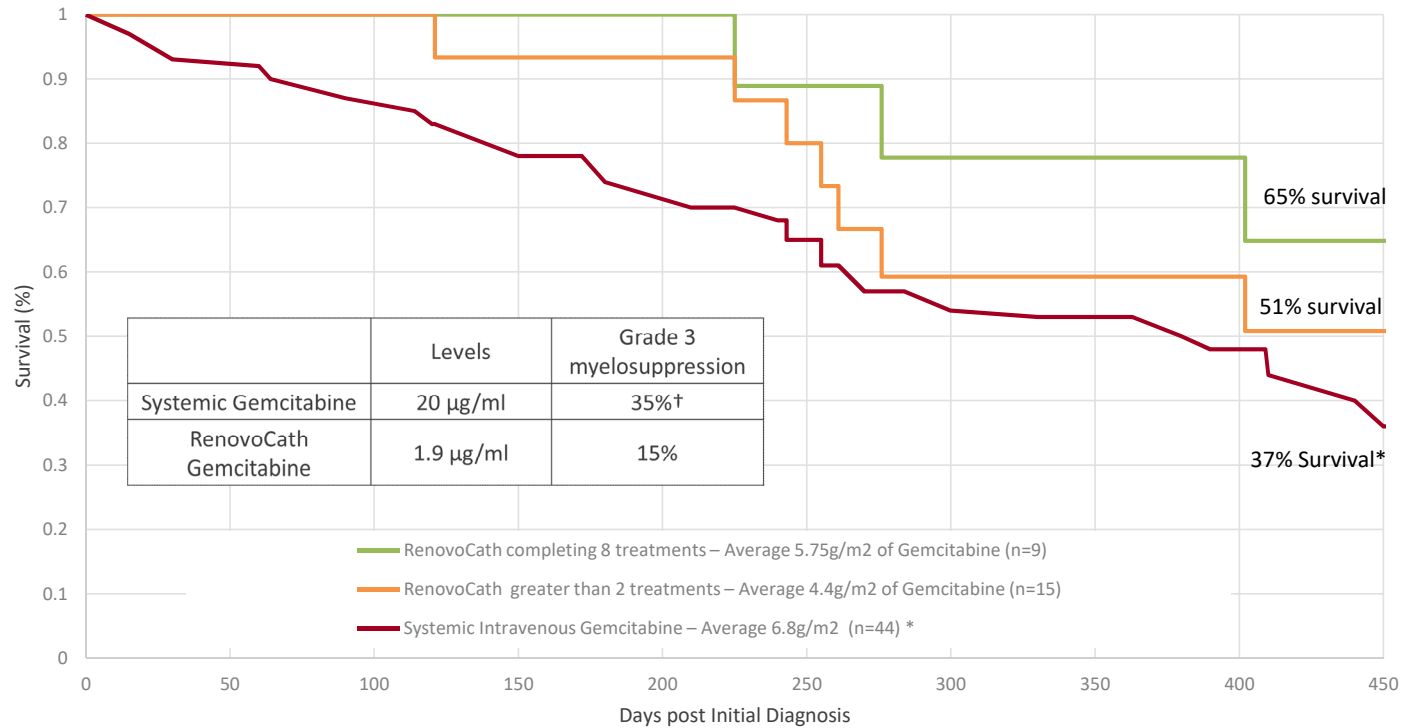
- 6 Fr Guiding Sheath must be advanced into Celiac or SMA
- RenovoRx Catheter is compatible with 0.014 wire
- Acute angled SMA may be difficult to access with routine techniques
- Working length 76-86 cm. (RA access is not feasible)
- Morph Catheter can be extremely helpful



# Use of a Morph Catheter



## Clinical Response with RenovoCath TACE vs. Historical Control Adenocarcinoma of the Pancreas



† Jiang X, Galettix P, Links M et al. Population pharmacokinetics of gemcitabine and its metabolite in patients with cancer: effect of oxaliplatin and infusion rate. *British Journal of Clinical Pharmacology*; 65:326-333

\*Chauffert B, Mornex F, Bonnetain F et al. Phase III trial comparing intensive induction chemoradiotherapy. *Ann Oncol* 2008; 19:1592-9

# Post-Market Registry

A Multi-Center, Post-Marketing, Prospective, Observational Study Following Treatment with Intra-Arterial Delivery of Chemotherapeutic Agents Using the RenovoCath™ Catheter

- Up to 10 US centers
- Up to 100 patients
- Launched January 2016
- 5 centers recruiting
- Additional centers in process



# Conclusions

- Intra-arterial gemcitabine can be given to patients with pancreatic cancer using localized delivery via RenovoCath Catheter with acceptable safety profile
- There is less Systemic side effects of gemcitabine as assessed by hematologic markers, using RenovoCath localized delivery
- There appears to be survival benefits in patients receiving localized gemcitabine especially if they complete a full course of therapy
- Post Market registry data will be extremely important for the adaptation of this mode of therapy