

Quickshot Presentation 4

Pancreatectomy at a high-volume tertiary referral center in New Mexico

Presenter: Arlin Bustillos

Arlin Bustillos, Andrea Howard, Henry Sorto, Rhiana Rivas, Steven Eberhardt MD, Chris Gutjahr MD, Lynn Saavedra, Anita Novak, Itzhak Nir MD, Matthew C Hernandez MD

Objective: Pancreatic diseases affect many populations in New Mexico. Pancreatectomy can be utilized as a part of a patient's treatment. We aim to better understand the changing impacts of neoadjuvant treatments in conjunction with pancreatectomy for the treatment of several cancers and benign diseases.

Methods: This retrospective study included 111 patients undergoing pancreatic procedures between May 2021 and July 2024 who were retrieved from the UNMH Cancer Center and compared by disease type and surgical approach. Overall survival, clinicopathologic characteristics, and prognostic factors were analyzed.

Results: Total number of pancreatectomies done at UNMH CC included 111 total cases, of which 44 (39.63%) were male, and 67 (60.36%) were female. Median age overall was 67.34 yrs (interquartile range [IQR], 54.13-80.55). Pancreatic procedures are further divided into the subtypes pancreaticoduodenectomy (PD) accounting for 59 (53.2%) total cases n (%), distal pancreatectomy (DP) 41 (36.7%), and enucleations (EN) 10 (9.0%). Operation duration had an overall average of 312.68 min, and for PD, DP, EN it was 356.78 [100-643], 267.86 [85-521], 202.62 [3-382], respectively n[range]. Average estimated blood loss came out to 218.59 cc, for the subtypes PD, DP, EN it was 225.76cc [30-600], 233.29cc [30-60], 116.00cc [10-200]. Length of hospital stay for the 111 cases of pancreatectomies had an average of 7.19 with the length of stay for

subtypes PD, DP, and EN being 7.61 days, 6.95 days, and 5.7 days, respectively.

Looking at postoperative complications, pancreatic leaks were the most common among all three procedures, followed by enteric leak, bile leak and delayed gastric emptying. A category of "other" included pleural effusion, infection and thrombotic events which were also seen in patients in all surgical subtypes. An overall complication rate of 18.01% was recorded with a rate of 20.33% for PD, 19.51% DP and 0.1% for EN. Within the group of pancreatic ductal adenocarcinoma, a common malignant pancreatic neoplasm, 28 cases received neoadjuvant therapy.

Total surgical cases are grouped into those receiving neoadjuvant vs non-neoadjuvant. Among these, there was a significant decrease in tumor size between neoadjuvant cases vs non-neoadjuvant (Avg 2.62 cm vs 3.75 cm $P=0.008$, respectively), post operative leaks (13.32% vs 31.77% of cases; $P=0.0344$), and venous involvement with more cases present in those receiving neoadjuvant vs. non-neoadjuvant (26.66% vs 1.51% of cases; $P<0.001$). There was no significant relationship between the differences of length of hospital stay, lymphovascular invasion present, or abortive procedures.

Conclusions: Neoadjuvant plays a prominent role in the treatment of pancreatic cancer. As an induction therapy before initial treatment, it has shown promising results before resections of tumors in many studies. There is improved association between post operative complications, and tumor size highlighting the importance of building our data to further analyze the benefits neoadjuvant has to a tertiary referral center like UNMH CC for New Mexico.

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Pancreatectomies with Neoadjuvant vs. W/O Neoadjuvant			
Variable	Procedures Receiving Neoadjuvant	Procedures w/o Neoadjuvant	P- Value
Total n(%)	45 (40.54)	66 (59.45)	
Disease Type			
PDAC <i>n</i> (%)	28 (62.22)	6 (9.09)	
PNET <i>n</i> (%)	1 (2.22)	18 (27.27)	
Cholangiocarcinoma	3 (6.66)	3 (4.54)	
Other <i>n</i> (%)	13 (28.88)	39 (59.09)	
Tumor size (cm)			0.008
Overall Avg	3.24		
Individual Avg	2.62	3.75	
Length Of Stay			0.4268
Overall Avg	6.96		
Individual Avg	6.86	7.03	
Complication Rates (# patients exp. complication)/(total patients)	18.01		
Individual Complication Rate	13.33	21.21	
Complication Type, <i>n</i> (%)			0.0344
Pancreatic Leak	3 (6.66)	9 (13.6)	
Enteric Leak	0 (0)	0 (0)	
Delayed Gastric Emptying	1 (2.22)	3 (4.54)	
Bile Leaks	0 (0)	6 (9.09)	
Other *	2 (4.44)	3 (4.54)	
Venous involvement: present, <i>n</i> (%)			<0.001
Yes, <i>n</i> (%)	12 (26.66)	1 (1.51)	
No, <i>n</i> (%)	33 (73.33)	65 (98.48)	
Lymphatic invasion: present, <i>n</i> (%)			0.331
Yes, <i>n</i> (%)	15 (33.33)	16 (24.24)	
No, <i>n</i> (%)	30 (66.66)	50 (75.75)	
Aborted Procedures			0.234
Overall <i>n</i> (%)	8 (7.20)		
Individual Avg	5	3	
*Other includes: pleural effusion, infection, and thrombotic event			