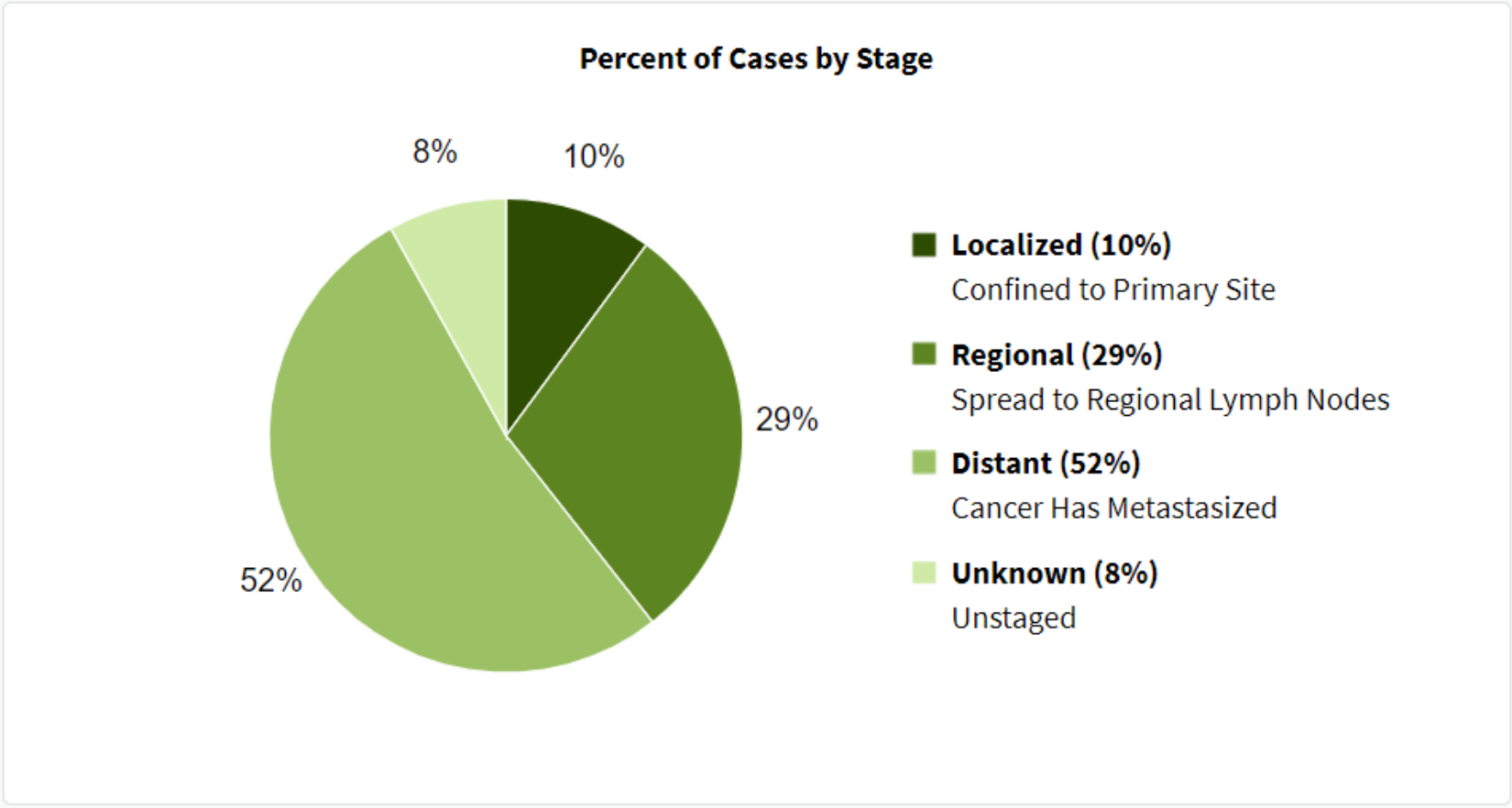
BORDERLİNE REZEKTABL PANKREAS KANSERİ VAKA SUNUMU

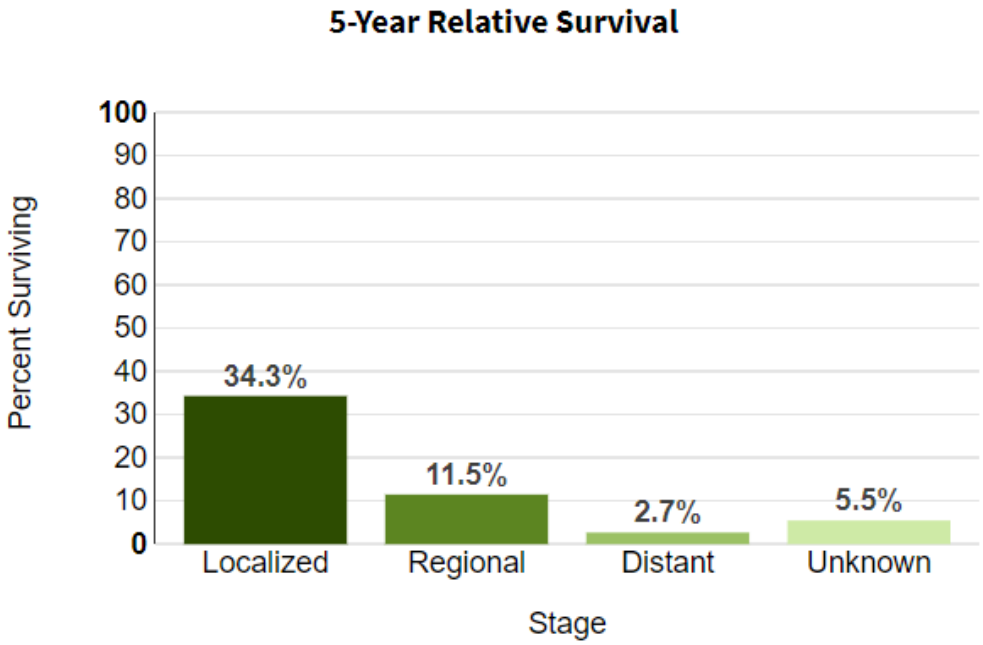
Dr. Deniz Tural
Bakırköy Dr. Sadi Konuk Eğitim ve Araştırma Hastanesi
Tıbbi Onkoloji

Pankreas Kanseri Evreye Göre Görülme Sıklığı

Percent of Cases & 5-Year Relative Survival by Stage at Diagnosis: Pancreatic Cancer



Pankreas Kanseri Evreye Göre Sağkalım



SEER 18 2008-2014, All Races, Both Sexes by SEER Summary Stage 2000

VAKA SUNUMU

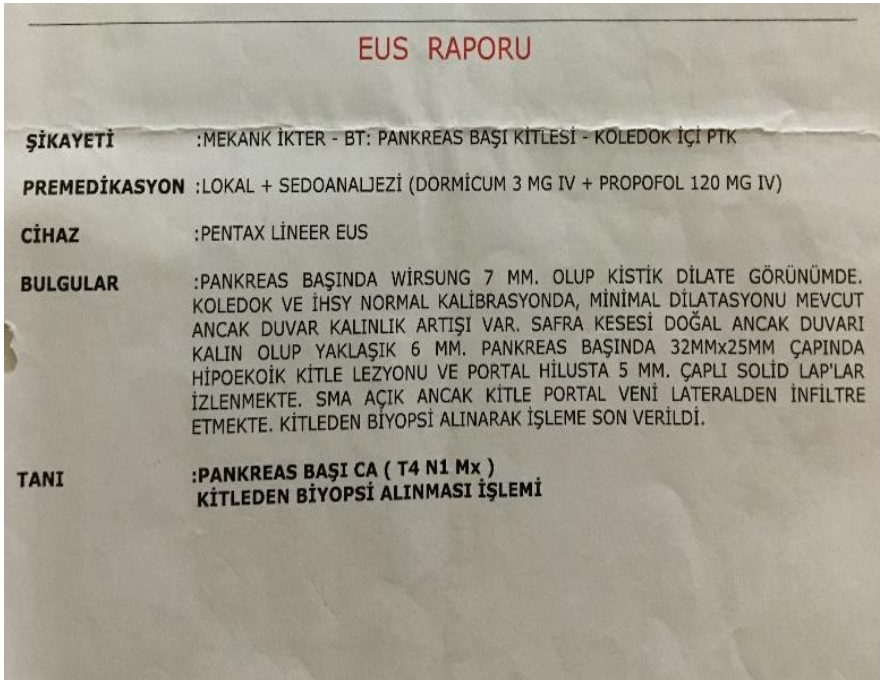
- 47 y, erkek hasta, tekstil işçisi
- Bilinen hastalık öyküsü yok
- Ailede kanser öyküsü yok
- 30 yıl/paket sigara öyküsü var
- Sarılık ve karın ağrısı ile başvurmuş
- Yapılan görüntülemelerde pankreas başında kitle saptanmış

10/2018 İlk Başvuru Tarihi

	Parametre Adı	Sonuc	Birim	Normal Değerler	
↑	Glukoz	147	mg/dL	74	106
	Üre	25	mg/dL	17	43
	Kreatinin	0.94	mg/dL	0.7	1.2
	eGFR	96.16	mL/min/1.7		
CKD-EPI formülü kullanilarak hesaplanmistir.					
↑	AST	100	U/L	0	50
↑	ALT	224	IU/L	0	50
↑	GGT	218	U/L	5	36
↑	LDH	270	U/L	135	248
↑	ALP	470	U/L	40	120
	Amilaz	28	U/L	< 100	
	Lipaz	28.72	U/L	0	67
	Albumin	40.1 (Eski sonuç/birim: 4.01 g/dL)	g/L	35	52
↑	Direkt Bilirubin	12.05	mg/dL	0	0.2
↑	Total Bilirubin	20.95	mg/dL	0	1.2
↑	İndirekt Bilirubin	8.9	mg/dL	0	1.2
	Kalsiyum	9.7	mg/dL	8.6	10.6
↓	Sodyum	133	mmol/L	136	145
	Potasyum	4.59	mmol/L	3.5	5.1
↑	CRP	15.43 (Eski sonuç/birim: 1.54 mg/dL)	mg/L	< 5	
	CEA	2.99	ng/mL	0	3
Sigara 0cen : 20-39 Ya_ ----- 3.8 ng/mL 40-150 Ya_ ----- 0-5.0 ng/mL Sigara 0çmeyen : 20-39 Ya_ ---- 0-5.5ng/mL 40-150 yas-----0-6.5 ng/mL					
↑	CA-19-9	116.6	U/mL	0	35

	Parametre Adı	Sonuc	Birim	Normal Değerler	
↑	WBC	10.47	10e3/uL	3.7	10.1
	RBC	4.72	10e6/uL	4.06	5.58
↓	HGB	12.8	g/dL	12.9	15.9
	HCT	39.8	%	39	49
	PLT	312	10e3/uL	155	366
	MCV	84.3	fL	81.1	96
	MCH	27.1	pg	27.0	31.2
	MCHC	32.2	g/dL	31.8	35.4
↑	RDW	14.9	%	11.5	14.5
↑	NEU#	7.25		1.63	6.96
	LYM#	1.95		1.09	2.99
	EO#	0.17		0.03	0.44
↑	MON#	1.04		0.24	0.79
	BASO#	0.06		0	0.8
	NEU%	69.3	%	50.0	70.0
	LYM%	18.6	%	18.0	48.3
	EO%	1.6	%	0.6	7.3
	MONO%	9.9	%	4.4	12.7
	BASO%	0.6	%	0	1.7
	MPV	13	fL	6.9	16
	PCT	0.4	%	0.0	9.99
↑	PDW	17.2	fL	9.30	14.30

10/2018 EUS Eşliğinde Biyopsi



EUS RAPORU

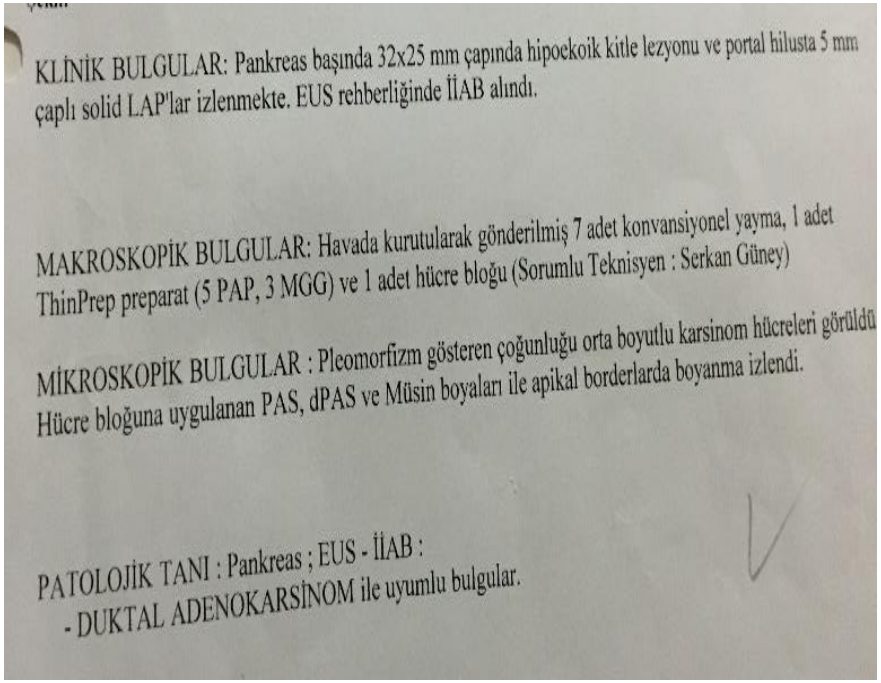
ŞİKAYETİ :MEKANK İKTER - BT: PANKREAS BAŞI KİTLESİ - KOLEDOK İÇİ PTK

PREMEDİKASYON :LOKAL + SEDOANALJEZİ (DORMİCUM 3 MG IV + PROPOFOL 120 MG IV)

CİHAZ :PENTAX LİNEER EUS

BULGULAR :PANKREAS BAŞINDA WİRSUNG 7 MM. OLUP KİSTİK DİLATE GÖRÜNÜMDE. KOLEDOK VE İHSY NORMAL KALİBRASYONDA, MİNİMAL DİLATASYONU MEVCUT ANCAK DUVAR KALINLIK ARTIŞI VAR. SAFRA KESESİ DOĞAL ANCAK DUVARI KALIN OLUP YAKLAŞIK 6 MM. PANKREAS BAŞINDA 32MMx25MM ÇAPINDA HİPOEKOİK KİTLE LEZYONU VE PORTAL HİLUSTA 5 MM. ÇAPLI SOLİD LAP'LAR İZLENMEKTE. SMA AÇIK ANCAK KİTLE PORTAL VENİ LATERALDEN İNFİLTRE ETMEKTE. KİTLEDEN BİYOPSİ ALINARAK İŞLEME SON VERİLDİ.

TANI **:PANKREAS BAŞI CA (T4 N1 Mx)**
KİTLEDEN BİYOPSİ ALINMASI İŞLEMİ



KLİNİK BULGULAR: Pankreas başında 32x25 mm çapında hipoekoik kitle lezyonu ve portal hilusta 5 mm çaplı solid LAP'lar izlenmekte. EUS rehberliğinde İİAB alındı.

MAKROSKOPİK BULGULAR: Havada kurutularak gönderilmiş 7 adet konvansiyonel yayma, 1 adet ThinPrep preparat (5 PAP, 3 MGG) ve 1 adet hücre bloğu (Sorumlu Teknisyen : Serkan Güney)

MİKROSKOPİK BULGULAR : Pleomorfizm gösteren çoğunluğu orta boyutlu karsinom hücreleri görüldü Hücre bloğuna uygulanan PAS, dPAS ve Müsin boyaları ile apikal borderlarda boyanma izlendi.

PATOLOJİK TANI : Pankreas ; EUS - İİAB :
- DUKTAL ADENOKARSİNOM ile uyumlu bulgular.

Endoskopik Retrograd Kolanjiyopankreatografi(ERCP) stent? Perkütan Bilier Sistem Drenajları (PTK)?

National Comprehensive Cancer Network®

NCCN Guidelines Version 1.2019
Pancreatic Adenocarcinoma

NCCN Guidelines Index
Table of Contents
Discussion

PRINCIPLES OF STENT MANAGEMENT

- **Stent placement is not routinely recommended prior to planned surgery; however, a stent may be considered for symptoms of cholangitis/ fever or severe symptomatic jaundice (intense pruritus), or if surgery is being delayed for any reason, including neoadjuvant therapy.**
- **Endoscopic retrograde cholangiopancreatography (ERCP)-guided biliary drainage is preferred. If ERCP is not possible, a percutaneous transhepatic cholangiography (PTC) approach may be used.**
- **Stents should be as short as feasible.**
- **Self-expanding metal stents (SEMS) should only be placed if tissue diagnosis is confirmed.**
- **For neoadjuvant therapy, fully covered SEMS are preferred since they can be removed/exchanged.**
- **During ERCP, common bile duct brushings may be done if no prior definitive diagnosis, and an EUS-guided biopsy can be done or repeated.**

ERCP İLE STENT YERLEŞTİRME TERCİH EDİLMELİDİR. ERCP MÜMKÜN OLMADIĞI DURUMLARDA PTK TERCİH EDİLMELİDİR

10/2018 Tarihinde PTK Takıldı

HİZMET ADI : Perkütan Bilier Drenaj

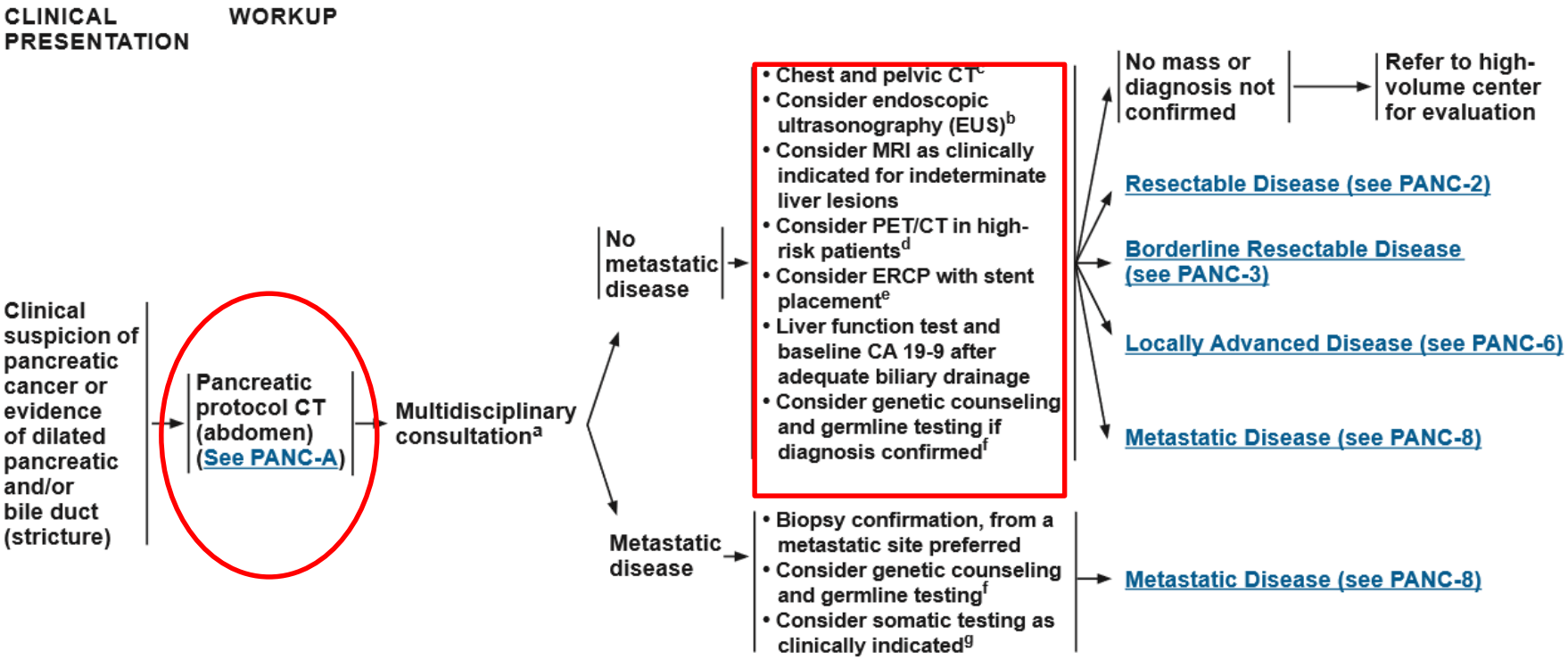
Perkütan transhepatik kolanjiyografi tetkiki ve perkütan bilier drenaj işlemi:
LAA, US ve floroskopi eşliğinde ince iğne ve biliyer girişim sistemi ile sağ bilier sisteme girildi. Takiben kontrast madde kullanımı ile kolanjiografi elde edildi.
Kolanjiografide;
Koledok distalinde ve sağ-sol ana hepatik kanal bileşkesinde darlık görüldü.
Perkütan biliyer drenaj işlemi:
İnce iğne üzerinden kılavuz tel ve takiben uygun katater kullanımlarıyla biliyer sistem dışarıya kanülize edildi. Ancak darlık değişik kılavuz tel ve kateter manipülasyonlarına rağmen geçilemedi. 10 F eksternal drenaj kateteri takılarak işlem sonlandırıldı. Komplikasyon olmadı. Dekompresyon ve ödem çözülmesinden sonra denenecek 2. girişimle darlığın geçilebilmesi mümkün olabilir.
İşlem sırasında toplam 50 cc kontrast madde kullanıldı.
Öneriler:
" Kateter bakımı
" Drenaj takibi
" İlk 24 saat vital bulgu takibi
" Gereği halinde uygun antiemetik ve analjezik tedavi (NSAİ dışı)
" Oral alımda tarafımızca kısıtlamaya gerek yoktur

Evreleme Nasıl Yapılmalı

National Comprehensive Cancer Network®

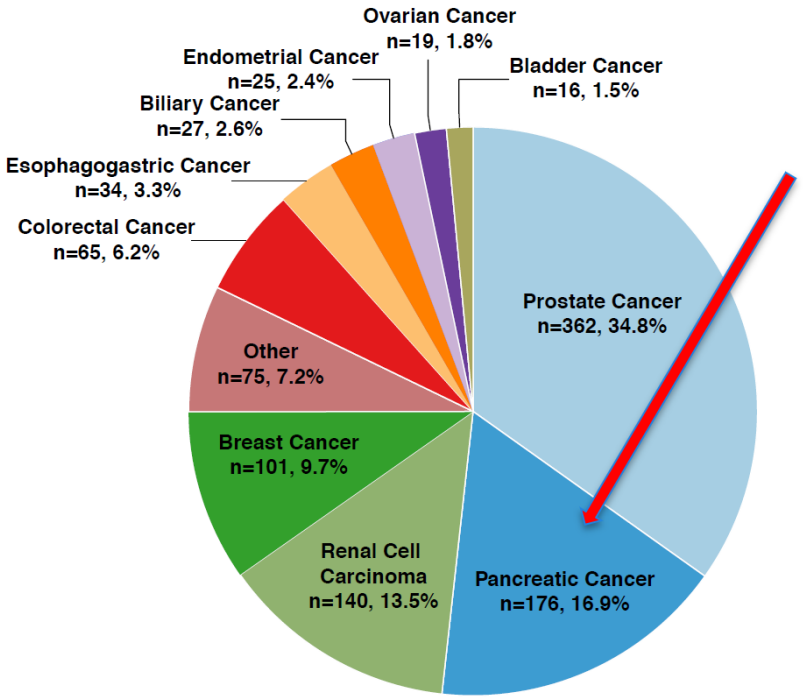
NCCN Guidelines Version 1.2019
Pancreatic Adenocarcinoma

NCCN Guidelines Index
Table of Contents
Discussion



PANKREAS KANSERİNDE GENETİK TESTLER İSTENMELİ Mİ

MSK IMPACT: Germline Testing: N= 1,040



PDAC n = 176 (16.9%)

BRCA 1
BRCA 2
CDKN2A
PALB2
ATM
CHEK2
APC
MUYTH

Mandelker, D. *JAMA* 2017.

Memorial Sloan Kettering Cancer Center

BRCA1 VE BRCA2 TESTLERİ İSTENDİ

Pankreas Kanserinde Tedavi Yaklaşımları

National Comprehensive Cancer Network®

NCCN Guidelines Version 1.2019
Pancreatic Adenocarcinoma

NCCN Guidelines Index
Table of Contents
Discussion

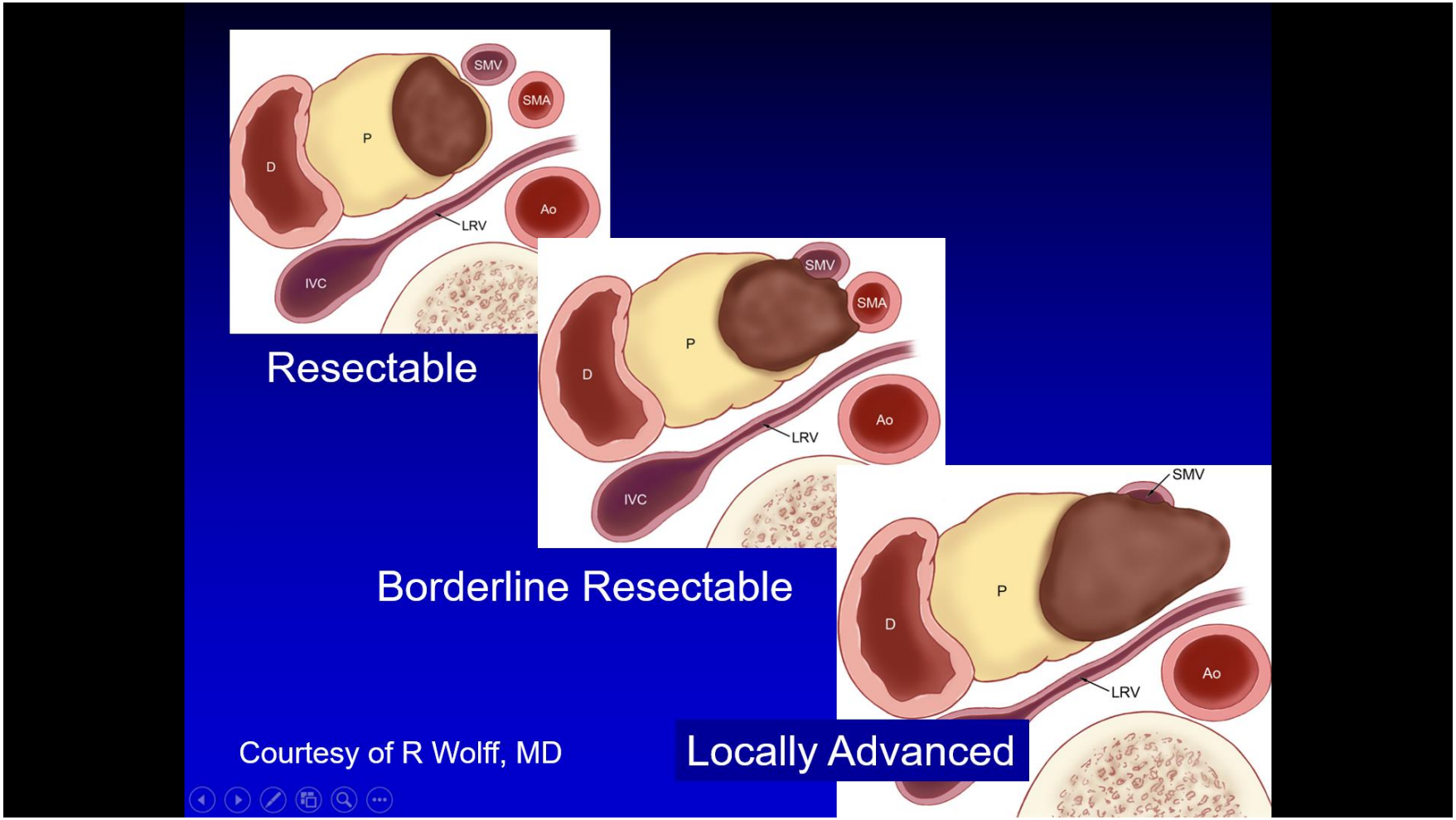
CRITERIA DEFINING RESECTABILITY STATUS[a]

Resectability Status	Arterial	Venous
Resectable	No arterial tumor contact (celiac axis [CA], superior mesenteric artery [SMA], or common hepatic artery [CHA]).	No tumor contact with the superior mesenteric vein (SMV) or portal vein (PV) or ≤180° contact without vein contour irregularity.
Borderline Resectable[b]	Pancreatic head/uncinate process: • Solid tumor contact with CHA without extension to CA or hepatic artery bifurcation allowing for safe and complete resection and reconstruction. • Solid tumor contact with the SMA of ≤180° • Solid tumor contact with variant arterial anatomy (ex: accessory right hepatic artery, replaced right hepatic artery, replaced CHA, and the origin of replaced or accessory artery) and the presence and degree of tumor contact should be noted if present, as it may affect surgical planning. Pancreatic body/tail: • Solid tumor contact with the CA of ≤180° • Solid tumor contact with the CA of >180° without involvement of the aorta and with intact and uninvolved gastroduodenal artery thereby permitting a modified Appleby procedure [some panel members prefer these criteria to be in the unresectable category].	• Solid tumor contact with the SMV or PV of >180°, contact of ≤180° with contour irregularity of the vein or thrombosis of the vein but with suitable vessel proximal and distal to the site of involvement allowing for safe and complete resection and vein reconstruction. • Solid tumor contact with the inferior vena cava (IVC).
Unresectable[b]	• Distant metastasis (including non-regional lymph node metastasis) Head/uncinate process: • Solid tumor contact with SMA >180° • Solid tumor contact with the CA >180° Body and tail: • Solid tumor contact of >180° with the SMA or CA • Solid tumor contact with the CA and aortic involvement	Head/uncinate process: • Unreconstructible SMV/PV due to tumor involvement or occlusion (can be due to tumor or bland thrombus) • Contact with most proximal draining jejunal branch into SMV Body and tail: • Unreconstructible SMV/PV due to tumor involvement or occlusion (can be due to tumor or bland thrombus)

[a]Al-Hawary MM, Francis IR, Chari ST, et al. Pancreatic ductal adenocarcinoma radiology reporting template: consensus statement of the Society of Abdominal Radiology and the American Pancreatic Association. Radiology 2014 Jan; 270(1):248-260.

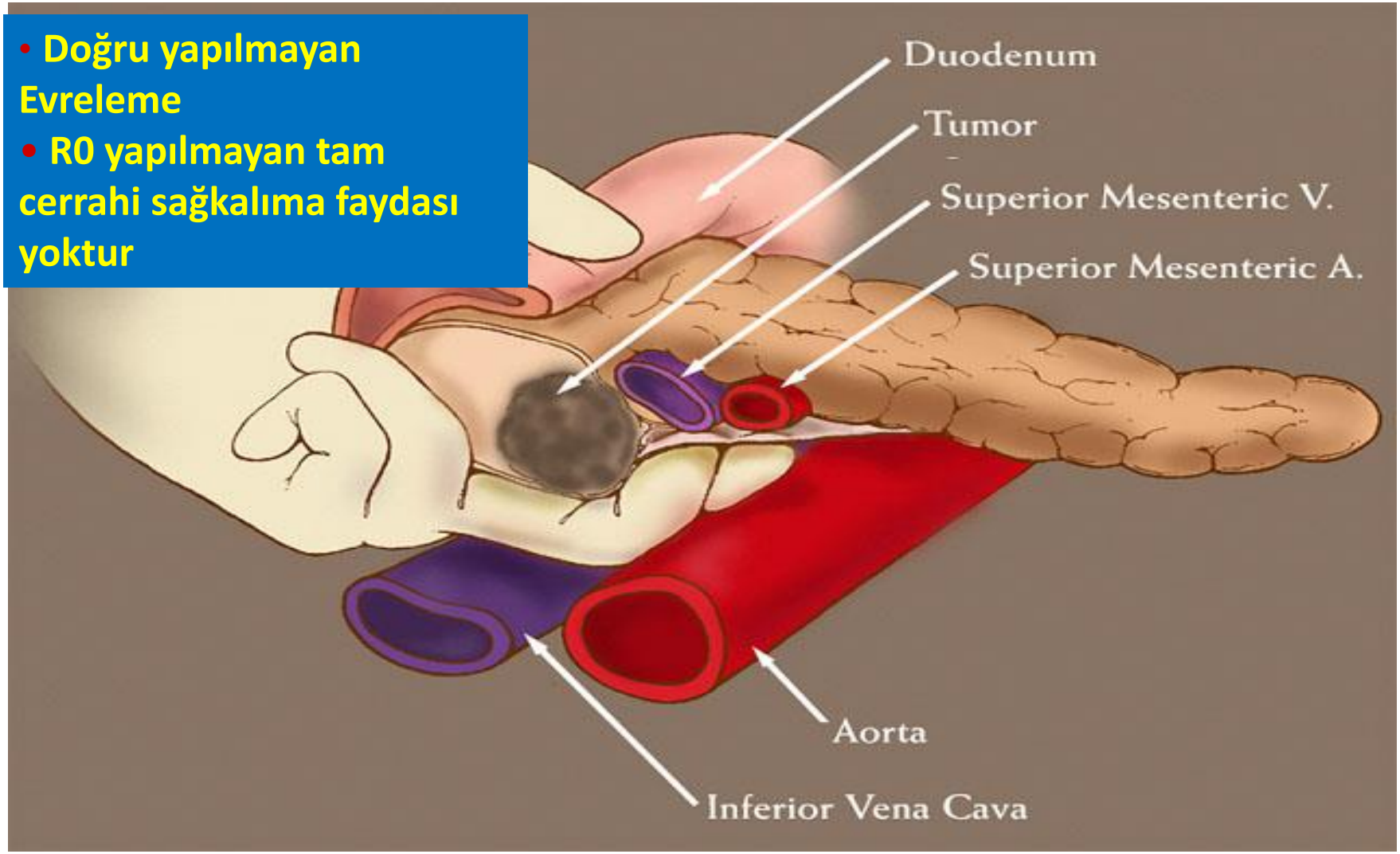
[b]Solid tumor contact may be replaced with increased hazy density/stranding of the fat surrounding the peri-pancreatic vessels (typically seen following neoadjuvant therapy); this finding should be reported on the staging and follow-up scans. Decision on resectability status should be made in these patients, in consensus at multidisciplinary meetings/discussions.

Pankreas Kanserinde Tedavi Yaklaşımları

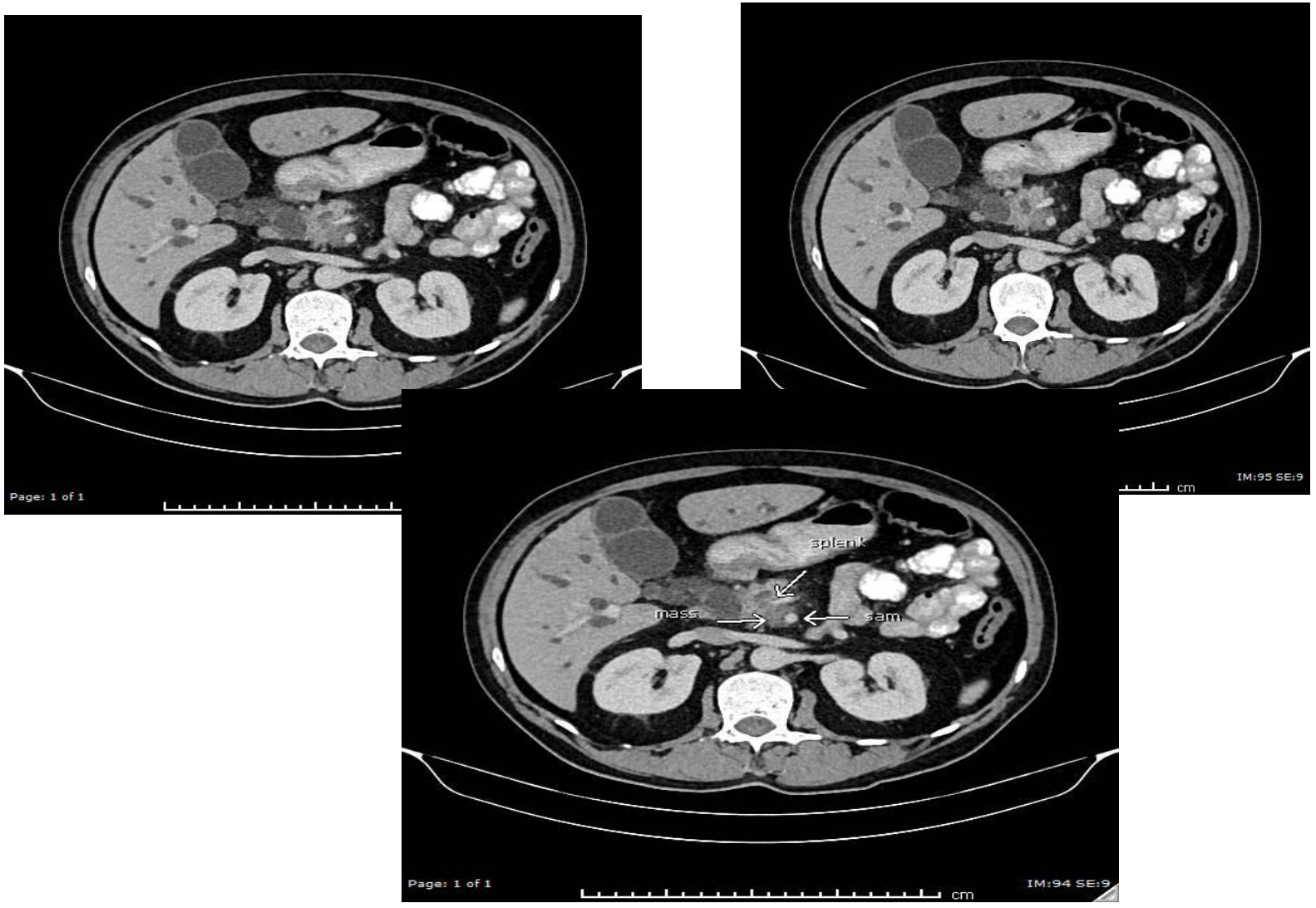


DOĞRU SINIFLANDIRMA DOĞRU TEDAVİ NEDEN ÖNEMLİ

- Doğru yapılmayan Evreleme
- R0 yapılmayan tam cerrahi sağkalıma faydası yoktur



10/2018 PANKREAS PROTOKOLÜNDE BATIN BT



10/2018 PANKREAS PROTOKOLÜNDE BATIN BT

Hastanın Tüm Batın Multidedektör Spiral BT incelemesinde,

İnceleme Oral yoldan kontrast madde verilmesini takiben İVKM öncesi ve İVKM sonrası arterial ve portal fazda 8mm kalınlıkta kesitler elde olunmuştur.

Karaciğer normal şekil ve boyuttadır. Konturları düzgündür. Parankim dansitesi homojen ve tabiidir. **Karaciğer segment 4A' da subkapsüler yerleşimli 9 mm çaplı, erken arterial fazda yoğun kontrastlanan, portal venöz fazda kontrast tutulumu devam eden, geç venöz fazda parankim ile yakın dansitede izlenen lezyon dikkati çekmektedir. Belirgin wash out göstermeyen lezyon ilk planda benign karakterde olarak değerlendirildi. Ancak pankreatik kitlesi bulunan olguda Dinamik MRG ile tetkik uygun olacaktır.** Vasküler yapılar tabiidir. Splenik ve portal venlerin genişlikleri doğaldır.

Safra kesesi hidropiktir (transvers düzlemde çap 44 mm).

Karaciğer sağ ve sol lobda intrahepatik safra yolları belirgin dilatedir.

Koledok izlenebilen proksimal ve orta segmentte dilatedir (çapı en geniş yerinde 2 cm). İntrapankreatik kanal pankreas baş ve boynu düzeyinde daha belirgin olmak üzere dilatedir (çapı en geniş yerinde 6,5 mm). Pankreas başı düzeyinde çift kanal bulgusuna neden olan, yaklaşık 35x29 mm boyutunda düzensiz lobüle sınırlı kitle izlendi. Çevresinde yağlı planlarda heterojenite ve multiple milimetrik lenf nodları mevcuttur. Kitle superior mezenterik arter ile 180 derece komşuluk göstermektedir. Ayrıca portal ven ve superior mezenterik ven ile de 180 derece komşuluğu izlenmekte olup komşu düzeyde ven kalibrasyonlarında hafif incelme eşlik etmektedir.

Dalak normal şekil ve büyüklükte olup, konturları muntazamdır. Parankim dansitesi doğaldır.

Her iki sürrenal gland normal görünümdedir.

Bilateral böbreklerin boyutları, konturları, parankim kalınlıkları, parankim dansiteleri ve pelvikaliksiyel yapıları normaldir.Taş ya da obstrüksiyon bulgusu saptanmadı. Pararenal ve perirenal alanlar normaldir.

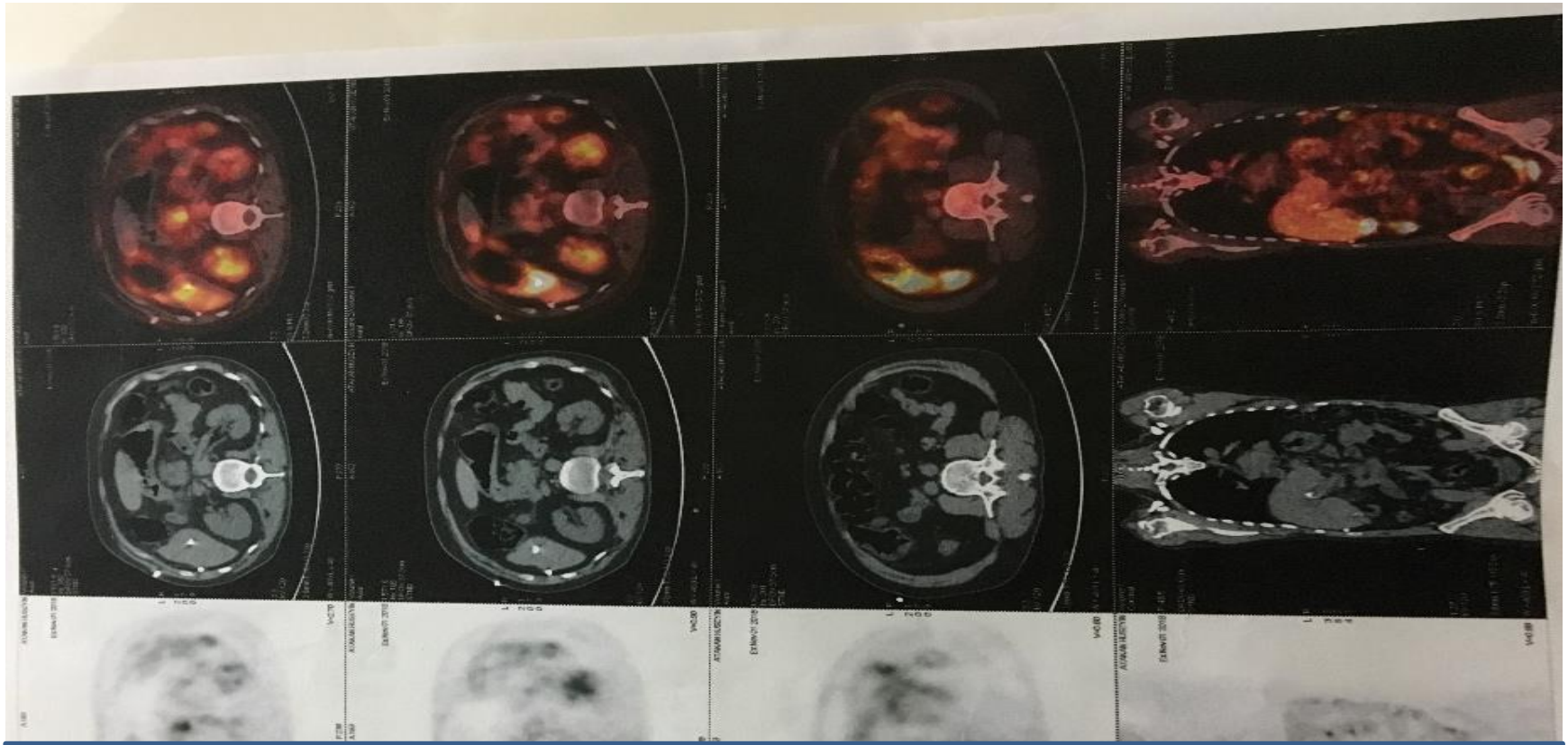
Mesane konturları muntazam olup, lümen içi dolum defekti saptanmadı. Duvar kalınlığı normal sınırlardadır. Perivezikal yağ dokusu tabiidir.

Prostat glandı santral dejeneratif kalsifikasyonlar içermektedir. Prostat, bilateral seminal veziküller ve rektum normal görünümde olup, çevre yağlı planlar açıktır.

Abdominal aorta ve inferior vena kava normaldir. Paraaortik, parakaval, parailiak, obturator ve inguinal zincirde patolojik boyutta lenf nodu saptanmadı.

Batın içi serbest veya loküle sıvı kolleksiyonu saptanmadı.

10/2018 PET-CT



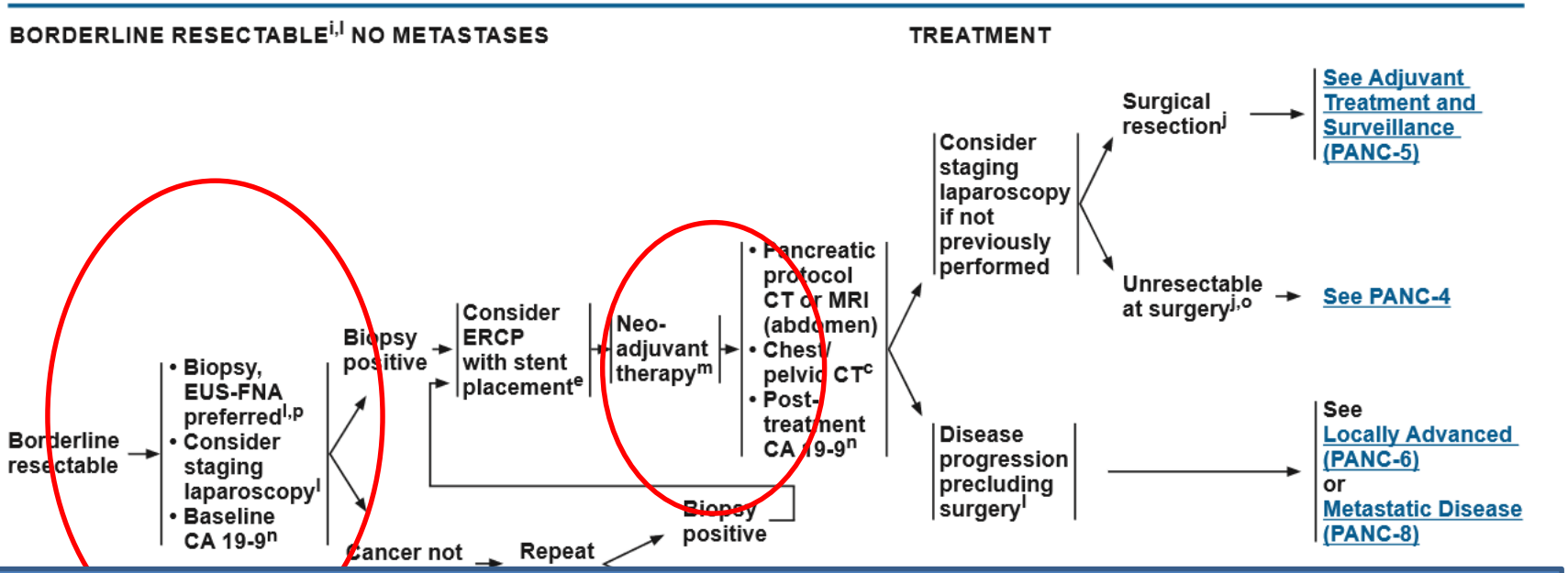
PET-CT UZAK METASTAZ YOK. PET-CT; METASTAZ İÇİN YÜKSEK RİSKLİ HASTALARDA İSTENEBLİR. BORDERLİNE TÜMÖRLERDE, PRİMER TÜMÖR YÜKÜNÜN FAZLA OLMASI,LENF NODU METASTAZI OLANLARDA, CA19.9 DEĞERİ ÇOK YÜKSEK OLAN HASTALARDA ÖNERİLEBİLİNİR.

BORDERLİNE PANKREAS KANSERİNDE TEDAVİ YAKLAŞIMLARI

National Comprehensive Cancer Network®

NCCN Guidelines Version 1.2019
Pancreatic Adenocarcinoma

NCCN Guidelines Index
Table of Contents
Discussion



LAPAROSKOPİK EVRELEME ,METASTAZ İÇİN YÜKSEK RİSKLİ HASTALARDA İSTENEBLİR. PRİMER TÜMÖR YÜKÜNÜN FAZLA OLMASI,LENF NODU METASTAZI OLANLARDA, CA19.9 DEĞERİ ÇOK YÜKSEK OLAN HASTALARDA, KAŞEKSİ VE ŞİDDETLİ AĞRI SEMPTOMU OLANLARDA ÖNERİLEBİLİNİR. SİTOLOJİ + HASTALAR M1 HASTALIK GİBİ TEDAVİ EDİLMELİDİR

Lokal İleri Pankreas Kanserinde Neoadjuvant FOLFIRINOX

Study	N	Stage	Resection rate	Path CR	R0 resection
Katz et al*	22	Borderline	68%	13%	93%
Blazer et al	43	Borderline/ locally advanced	51%	—	85.7%
Hackert et al	575	Locally advanced	61%	5.3%	41%
Kushman et al	51	Borderline/ locally advanced	25%	2%	70%
Petrelli et al	253	Borderline resectable/locally advanced	43%	—	85%
Suker et al	325	Locally advanced	25.9%	—	74%

* Prospective study

Katz et al, JAMA Surg, 2016; Hackert et al, Ann Surg 2016;264:457-63; Blazer et al, JCO 32 suppl 3, #274; Kushman et al, Pancreatology 15 (2015) 667e673, Pancreatology, 2015, 667-73; Suker M et al, Lancet Oncol 2016; 17: 801-10; Petrelli Pancreas 2015;44: 515-21.

Courtesy of Philip A Philip, MD, PhD

BORDERLİNE PANKREAS KANSERİNDE TEDAVİ YAKLAŞIMLARI RADYOTERAPİNİN YERİ

MDACC Neoadjuvant Experience in Clearly Resectable Disease

Study	Regimen	N	Chemo RT	Laparotomy	Resected
Evans et al	Gem/RT	86	86	73	64
Varadhachary et al	Gem/cis/ RT	90	79	62	52

- 28%-43% were not resected (early progression?)
- About 12% who “looked resectable” undergoing laparotomy after preop treatment were not resectable

Evans DB et al. *J Clin Oncol* 2008;26(21):3496-502.
Varadhachary GR et al. *J Clin Oncol* 2008;26(21):3487-95.

BORDERLİNE PANKREAS KANSERİNDE TEDAVİ YAKLAŞIMLARI RADYOTERAPİNİN YERİ

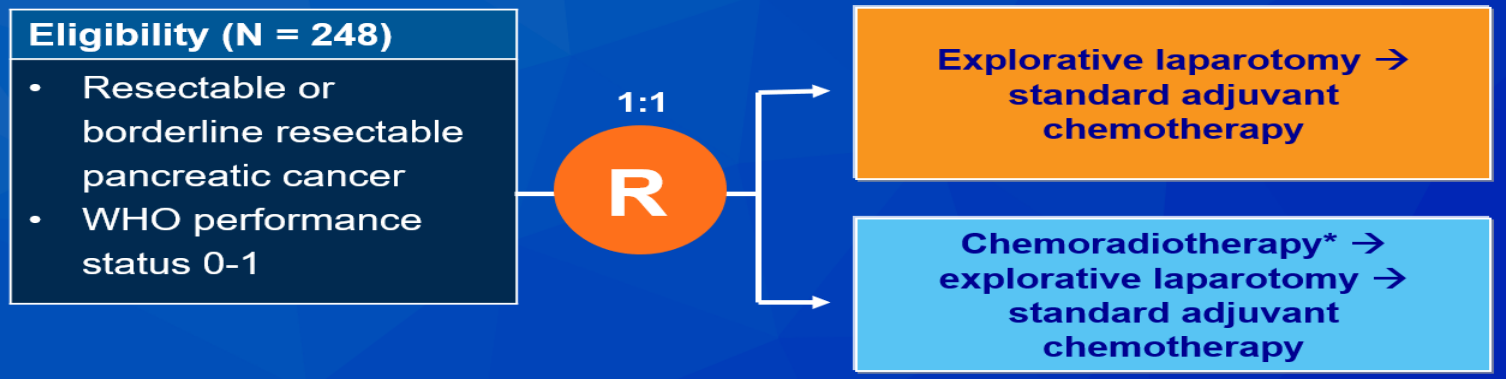
Overall Survival After Neoadjuvant Therapy

Study	All patients	Resected	Not resected
Evans et al (n = 86)	22.7 mo	34.0 mo	7.0 mo
Varadhachary et al (n = 90)	17.4 mo	31.0 mo	10.5 mo
Ko et al (n = 25)	—	—	13.5 mo

Evans DB et al. *J Clin Oncol* 2008;26(21):3496-502.
Varadhachary GR et al. *J Clin Oncol* 2008;26(21):3487-95.
Ko A et al. *Int J Radiat Oncol Biol Phys* 2007;68(3):809-16.

BORDERLİNE PANKREAS KANSERİNDE TEDAVİ YAKLAŞIMLARI RADYOTERAPİNİN YERİ

PREOPANC-1: Phase III Trial Design



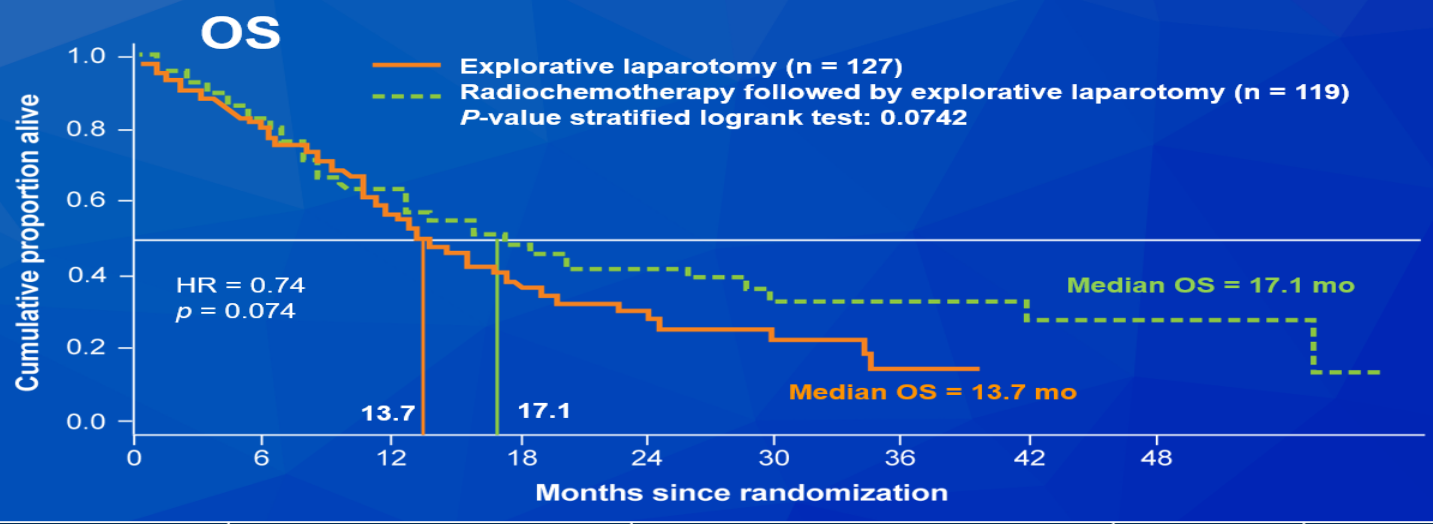
* Preoperative chemoradiotherapy consisted of 15 times of 2.4 Gray (Gy) combined with gemcitabine, 1,000 mg/m^2 on d1, 8 and 15, preceded and followed by a cycle of gemcitabine

- **Primary endpoint: OS in ITT population**
- Prior to randomization, patients were stratified by resectability and institution.

Van Tienhoven G et al. *Proc ASCO* 2018;Abstract LBA4002.

BORDERLİNE PANKREAS KANSERİNDE TEDAVİ YAKLAŞIMLARI RADYOTERAPİNİN YERİ

PREOPANC-1: Survival in ITT population

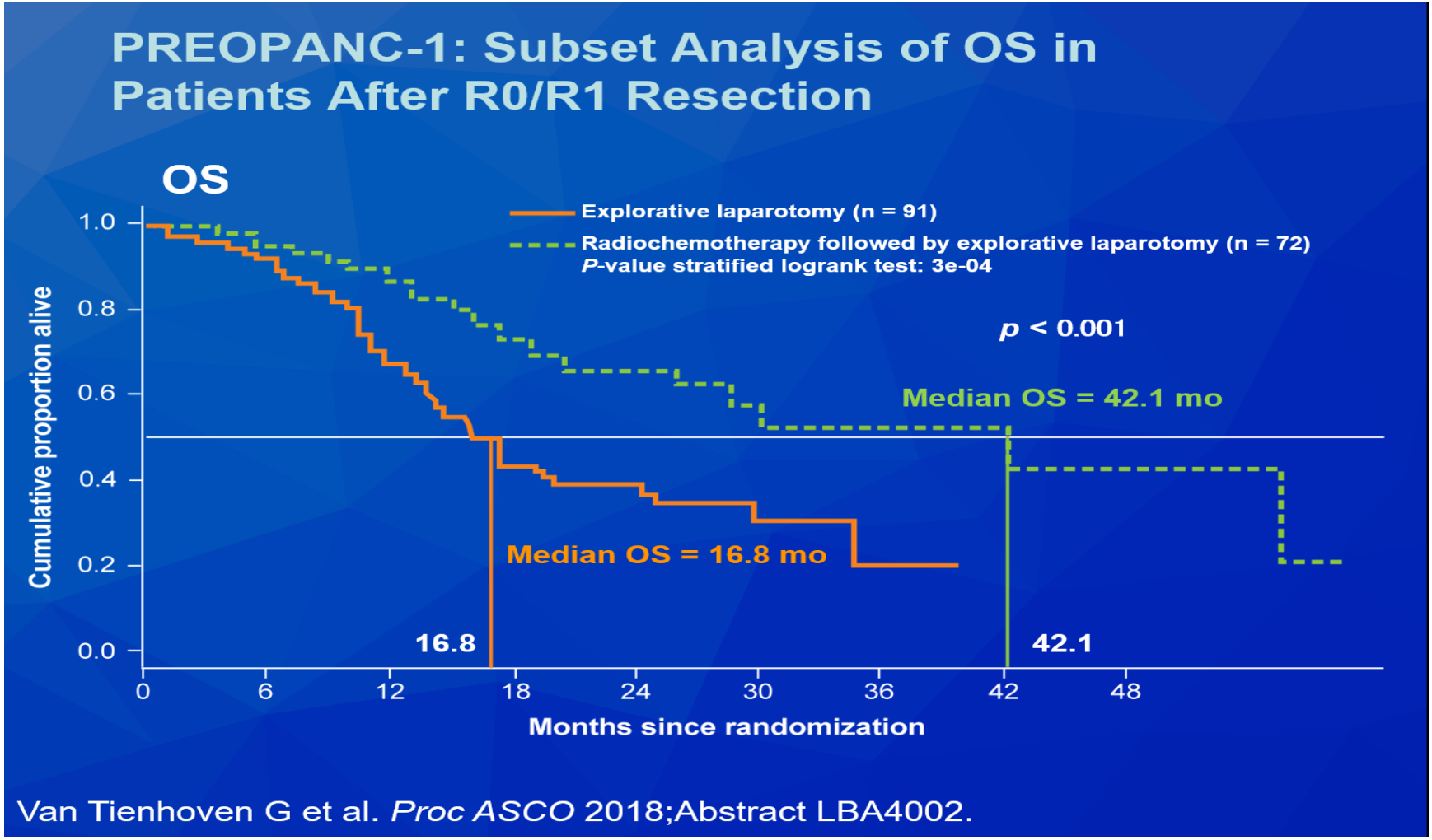


Survival	Radiochemotherapy (n = 119)	Explorative laparotomy (n = 127)	HR	*p*-value
Median DFS	9.9 mo	7.9 mo	0.71	0.023
Median DMFI	18.4 mo	10.6 mo	0.71	0.013
Median LRFI	Not reached	11.8 mo	0.55	0.002

DMFI = distant metastases-free interval; LRFI = locoregional recurrence-free interval; NR = not reached

Van Tienhoven G et al. *Proc ASCO* 2018;Abstract LBA4002.

BORDERLİNE PANKREAS KANSERİNDE TEDAVİ YAKLAŞIMLARI RADYOTERAPİNİN YERİ



Van Tienhoven G et al. *Proc ASCO* 2018;Abstract LBA4002.

BORDERLİNE PANKREAS KANSERİNDE TEDAVİ YAKLAŞIMLARI RADYOTERAPİNİN YERİ

National Comprehensive Cancer Network®

NCCN Guidelines Version 1.2019
Pancreatic Adenocarcinoma

NCCN Guidelines Index
Table of Contents
Discussion

PRINCIPLES OF CHEMOTHERAPY

General Principles:

- Systemic therapy is used in all stages of pancreatic cancer. This includes neoadjuvant therapy (resectable or borderline resectable), adjuvant therapy, and first-line or subsequent therapy for locally advanced, metastatic, and recurrent disease.
- Goals of systemic therapy should be discussed with patients prior to initiation of therapy, and enrollment in a clinical trial is strongly encouraged.
- Close follow-up of patients undergoing chemotherapy is indicated.
- For regimens where RT or chemoradiation is included, see Principles of Radiation Therapy (PANC-G) for more details related to radiation delivery, including recommended technique and dose.
- To optimize the care of older adults, see NCCN Guidelines for Older Adult Oncology.

Neoadjuvant Therapy (Resectable/Borderline Resectable Disease)

- There is limited evidence to recommend specific neoadjuvant regimens off-study, and practices vary with regard to the use of chemotherapy and radiation. Subsequent chemoradiation is sometimes included. When considering neoadjuvant therapy, consultation at a high-volume center is preferred. If neoadjuvant therapy is recommended, treatment at or coordinated through a high-volume center is preferred, when feasible. Participation in a clinical trial is encouraged.

Preferred Regimens

- FOLFIRINOX/modified FOLFIRINOX[a] ± subsequent chemoradiation[b]
- Gemcitabine + albumin-bound paclitaxel ± subsequent chemoradiation[b]

Only for known *BRCA1/2* or *PALB2* mutations:

- FOLFIRINOX/modified FOLFIRINOX[a] ± subsequent chemoradiation[b]
- Gemcitabine + cisplatin (≥2–6 cycles) ± subsequent chemoradiation[b]

Other Recommended Regimens

- None

09/2018 Tarihinde Tedavi Başlandı

- FOLFORINOX
- GCS-F ile primer febril nötropeni profilaksisi yapıldı
- Kemoterapi tedavisini iyi tolere etti
- Bulantı dışında belirgin yan etki görülmedi
- Doz azaltmaya ihtiyaç olmadı

LOKALİLERİ PANKREAS KANSERİNDE TEADVİ SEÇENEKLERİ

Which neoadjuvant regimen would you likely recommend for an otherwise healthy patient with pancreatic cancer that is deemed by the surgeon to be…

- **Unresectable but may become resectable with tumor shrinkage?**
- **Resectable?**

What is the likelihood that significant tumor shrinkage will occur in response to neoadjuvant chemotherapy to improve the chances of achieving resectability?

	NEOADJUVANT TX: NEEDS TUMOR SHRINKAGE	NEOADJUVANT TX: RESECTABLE	LIKELIHOOD OF SIGNIFICANT SHRINKAGE WITH NEOADJ TX
 TANIOS BEKAII-SAAB, MD	mFOLFIRINOX	None	Locally adv: 10% - 30% Borderline resect: 50% - 80%
 JOHANNA C BENDELL, MD	FOLFIRINOX (or mFOLFIRINOX)	None	30%
 AXEL GROTHEY, MD	mFOLFIRINOX	mFOLFIRINOX	30%
 HOWARD S HOCHSTER, MD	mFOLFIRINOX	None	20%
 HEINZ-JOSEPH LENZ, MD	FOLFIRINOX (or mFOLFIRINOX)	None	30%
 BERT H O'NEIL, MD	FOLFIRINOX (or mFOLFIRINOX)	FOLFIRINOX (or mFOLFIRINOX)	10%
 PHILIP A PHILIP, MD, PHD	FOLFIRINOX (or mFOLFIRINOX)	None	Locally adv: 5% Borderline resect: 50%

mFOLFIRINOX = modified FOLFIRINOX

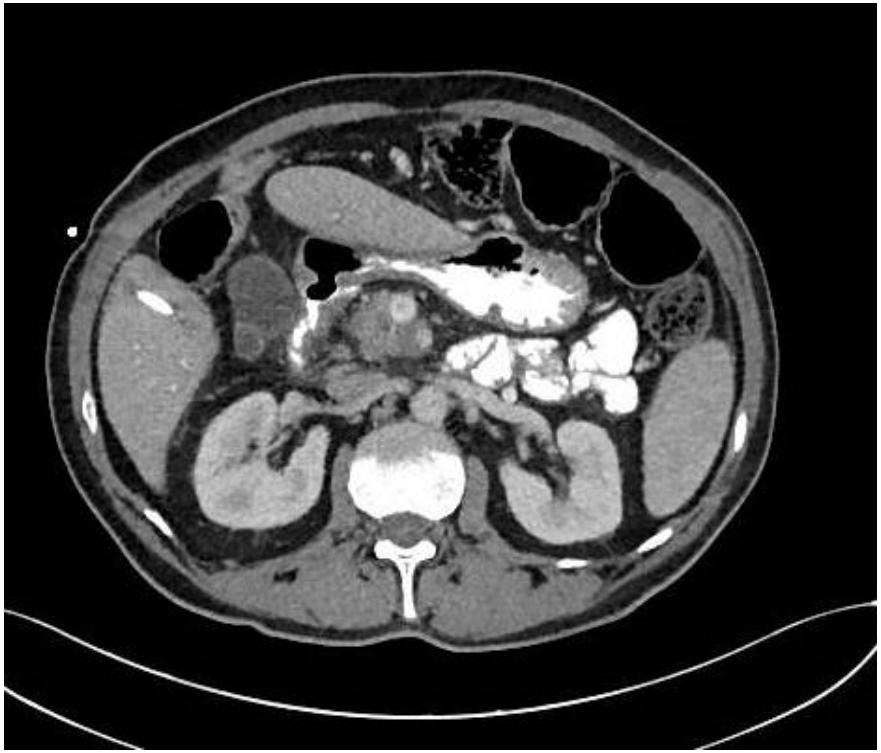
Research To Practice®

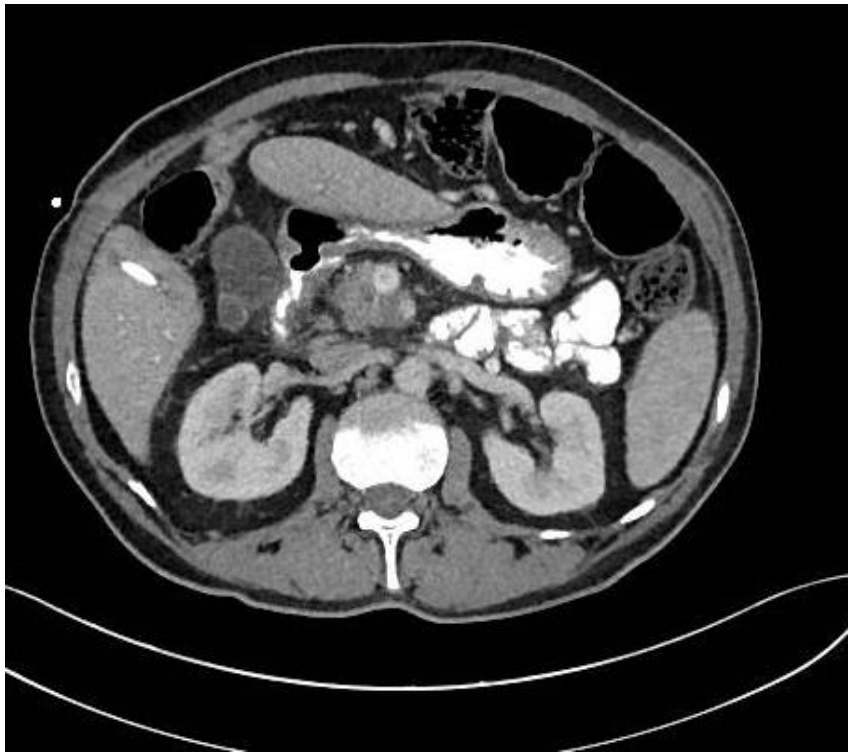
01/2019 /6 KÜR FOLFORINOX
KT SONRASI

	Parametre Adı	Sonuc	Birim	Normal Değerler		Önceki Sonuc
	Glukoz	95.8	mg/dL	74	106	Grafik.
	Üre	30.1	mg/dL	17	43	Grafik.
	Kreatinin	0.77	mg/dL	0.7	1.2	Grafik.
	eGFR	108.06	mL/min/1.7			Grafik.
CKD-EPI formülü kullanilarak hesaplanmistir.						
↑	AST	87	U/L	0	50	Grafik.
↑	ALT	193.5	IU/L	0	50	Grafik.
↑	GGT	116	U/L	5	36	Grafik.
↑	ALP	261	U/L	40	120	Grafik.
	LDH	219	U/L	135	248	Grafik.
	Total Protein	77 (Eski birim: 7.70 g/dL)	g/L	64	83	Grafik.
	Albumin	36.7 (Eski birim: 3.67 g/dL)	g/L	35	52	Grafik.
↑	Direkt Bilirubin	0.32	mg/dL	0	0.2	Grafik.
	Total Bilirubin	0.81	mg/dL	0	1.2	Grafik.
	İndirekt Bilirubin	0.49	mg/dL	0	1.2	Grafik.
	Kalsiyum	9.6	mg/dL	8.6	10.6	Grafik.
	Sodyum	138.1	mmol/L	136	145	Grafik.
↓	Potasyum	3.48	mmol/L	3.5	5.1	Grafik.
↑	CEA	9.52	ng/mL	0	3	Grafik.
Sigara 0cen : 20-39 Ya_ ----- 3.8 ng/mL 40-150 Ya_ ----- 0-5.0 ng/mL Sigara 0çmeyen : 20-39 Ya_ ---- 0-5.5ng/mL 40-150 yas-----0-6.5 ng/mL						
	CA-19-9	24.5	U/mL	0	35	Grafik.

	Parametre Adı	Sonuc	Birim	Normal Değerler	
	WBC	6.29	10e3/uL	3.7	10.1
	RBC	4.37	10e6/uL	4.06	5.58
↓	HGB	12.1	g/dL	12.9	15.9
↓	HCT	37.2	%	39	49
↓	PLT	141	10e3/uL	155	366
	MCV	85.1	fL	81.1	96
	MCH	27.7	pg	27.0	31.2
	MCHC	32.5	g/dL	31.8	35.4
	RDW	13.4	%	11.5	14.5
	NEU#	4.91		1.63	6.96
↓	LYM#	0.86		1.09	2.99
	EO#	0.12		0.03	0.44
	MON#	0.36		0.24	0.79
	BASO#	0.04		0	0.8
↑	NEU%	78.1	%	50.0	70.0
↓	LYM%	13.7	%	18.0	48.3
	EO%	1.9	%	0.6	7.3
	MONO%	5.7	%	4.4	12.7
	BASO%	0.6	%	0	1.7
	MPV	12	fL	6.9	16
	PCT	0.17	%	0.0	9.99
↑	PDW	16.2	fL	9.30	14.30

01/2019 /6 KÜR FOLFORINOX
KT SONRASI





6 kür FOLFORINOX İLE KISMİ GERİLEME MEVCUT. TÜMÖR KONSEYİNDE SMA > 180 DERECE SARDIĞI İÇİN OPERASYONA UYGUN GÖRÜLMEDİ

BİR SONRAKİ TEDAVİ SEÇENEĞİ

- SABRT+/-Capecitabine
- SABRT+/-Gemcitabine
- FOLFORINOX 4-6 kür eklemek
- mFOLFORINOX ile devam etmek
- Nab-paclitaxel+gemcitabine

LOKAL İLERİ PANKREAS KANSERİNDE DEVAM EDEN ÇALIŞMALAR

Select Ongoing Neoadjuvant Trials for Pancreatic Adenocarcinoma

Trial identifier	Phase	N	Randomization
SWOG-S1505 (NCT02562716)	II	112	• mFOLFIRINOX → surgery → mFOLFIRINOX • *Nab*/gem → surgery → *nab*/gem
NEPAFOX (NCT02172976)	II/III	126	• FOLFIRINOX → surgery → FOLFIRINOX • Surgery → gem
ESPAC-5F (ISRCTN89500674)	II	100	• Surgery • Gem/cap → surgery • FOLFIRINOX → surgery • Cap + RT → surgery

Nab = *nab* paclitaxel; gem = gemcitabine; cap = capecitabine

www.clinicaltrials.gov. Accessed May 2018; http://www.isrctn.com/ISRCTN89500674

LOKAL İLERİ PANKREAS KANSERİNDE DEVAM EDEN ÇALIŞMALAR

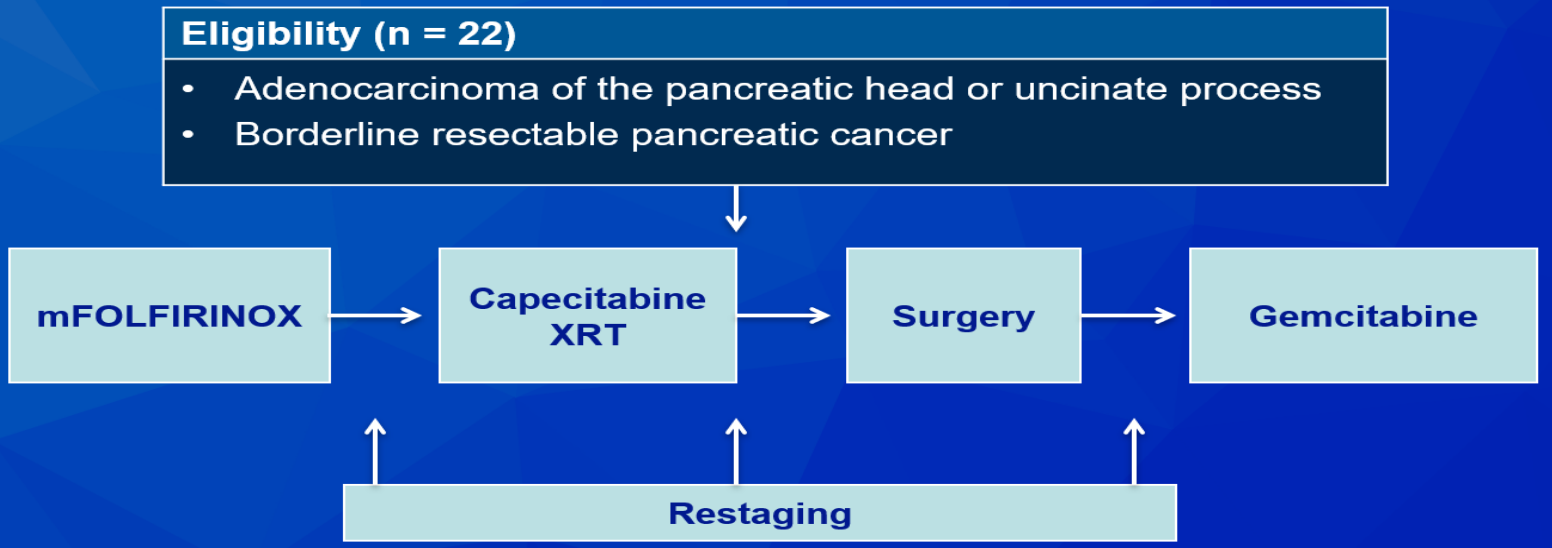
Select Ongoing Phase III Trials in the Adjuvant and Locally Advanced Settings of Pancreatic Adenocarcinoma

Trial identifier	N	Setting	Randomization
APACT (NCT01964430)	866	Adjuvant	• *Nab* paclitaxel + gemcitabine • Gemcitabine
CSPAC-010 (NCT02506842)	300	Second line, gemcitabine refractory	• *Nab* paclitaxel + gemcitabine • Oxaliplatin/folinic acid/fluorouracil
PANC0015 (NCT01926197)	172	Locally advanced	• mFOLFIRINOX + SBRT • mFOLFIRINOX
CONKO-007 (NCT01827553)	830	Locally advanced, unresectable	• Gemcitabine or FOLFIRINOX → chemoRT • Gemcitabine or FOLFIRINOX
NEOPAN (NCT02539537)	170	Locally advanced	• FOLFIRINOX • Gemcitabine

www.clinicaltrials.gov. Accessed May 2018.

LOKAL İLERİ PANKREAS KANSERİNDE DEVAM EDEN ÇALIŞMALAR

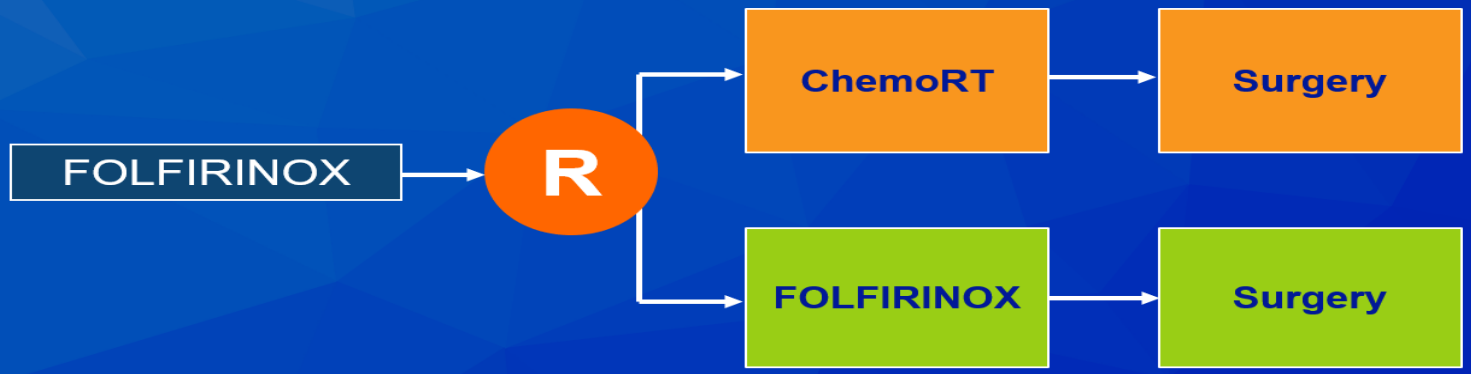
A021101: A Phase II Study of mFOLFIRINOX → Capecitabine-Based Chemoradiation for Borderline Resectable Pancreatic Cancer



Katz MH et al. *JAMA Surg* 2016;151(8):37:e161137; www.clinicaltrials.gov. NCT01821612

LOKAL İLERİ PANKREAS KANSERİNDE DEVAM EDEN ÇALIŞMALAR

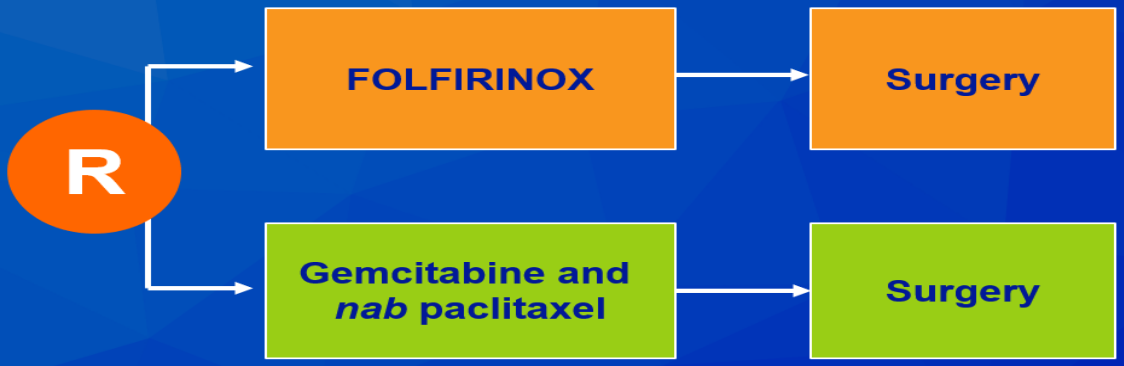
Neoadjuvant FOLFIRINOX versus Chemoradiation for Borderline Resectable Pancreatic Cancer



Courtesy of Dr Margaret Tempero.

LOKAL İLERİ PANKREAS KANSERİNDE DEVAM EDEN ÇALIŞMALAR

Phase II Trial of Neoadjuvant Chemotherapy for Resectable Pancreatic Cancer

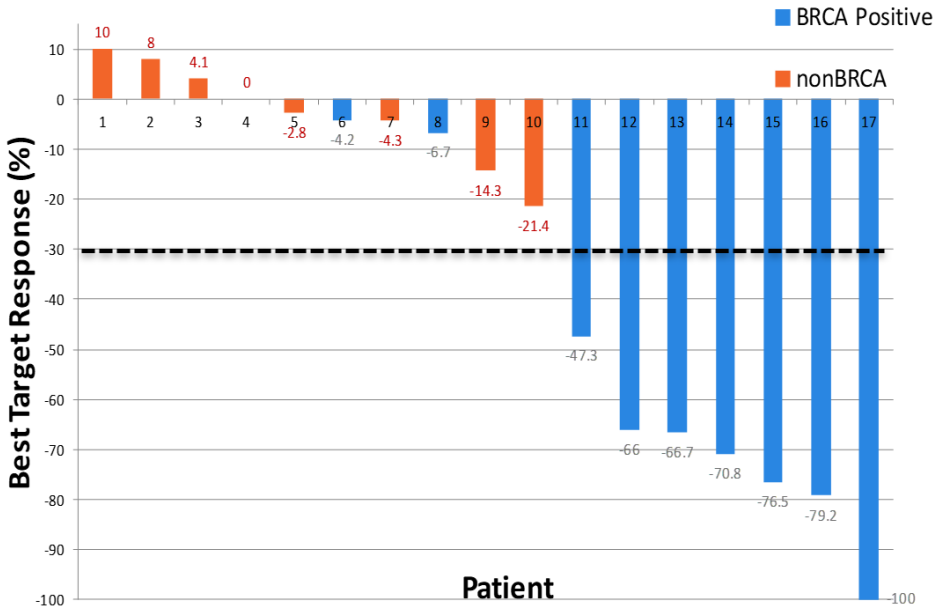


Endpoints: pCR rate, R1 resection rate, DFS, OS

Courtesy of Dr Margaret Tempero.

PANKREAS KANSERİNDE YENİ TEDAVİ SEÇENEKLERİ

Phase IB: Cisplatin, Gem, Veliparib
RECIST: gBRCA(+) vs gBRCA(-)



- Germline BRCA(-): OS 11 months (95% CI: 1.5 - 12.1)
- Germline BRCA(+): OS 23.3 months (95% CI: 3.8 - 30.2)
- Predictive vs Prognostic effect

O'Reilly, EM. *Cancer* 2018 (In press).

Memorial Sloan Kettering Cancer Center

PANKREAS KANSERİNDE YENİ TEDAVİ SEÇENEKLERİ

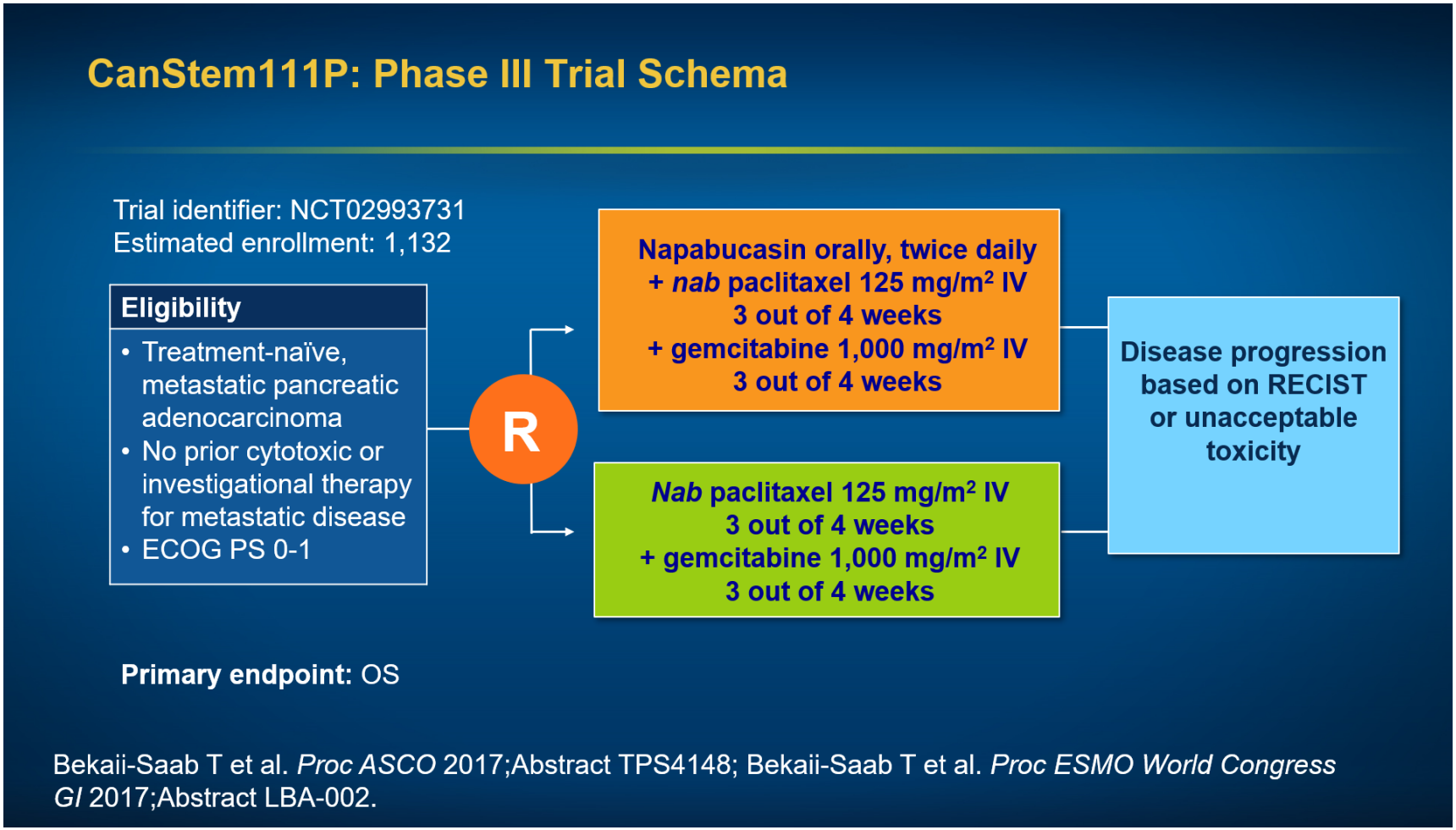
Single-Agent PARPi Trials PDAC: Completed

	Olaparib	Veliparib	Rucaparib
N	23	16	19
BRCA Type	Germline	Germline	Germline (15)/ Somatic (4)
Lines of Therapy	Mean = 2	Mean = 2	1-2
Prior platinum	15/23 (65%)	13/16 (82%)	
Response Rate	5/23 (22%)	-	3/19 (15%)
Stable Disease	8/22 (35%)	4/16 (25%) 4, 4, 10, 11 m	4/19 (21%) 1 CR: 14 m+

Kaufmann, B. *J Clin Oncol* 2014. Lowery, M. *Eur J Cancer* 2017. Domchek, S. *J Clin Oncol* 2016 (34):4110 [abstr].

Memorial Sloan Kettering Cancer Center

PANKREAS KANSERİNDE YENİ TEDAVİ SEÇENEKLERİ

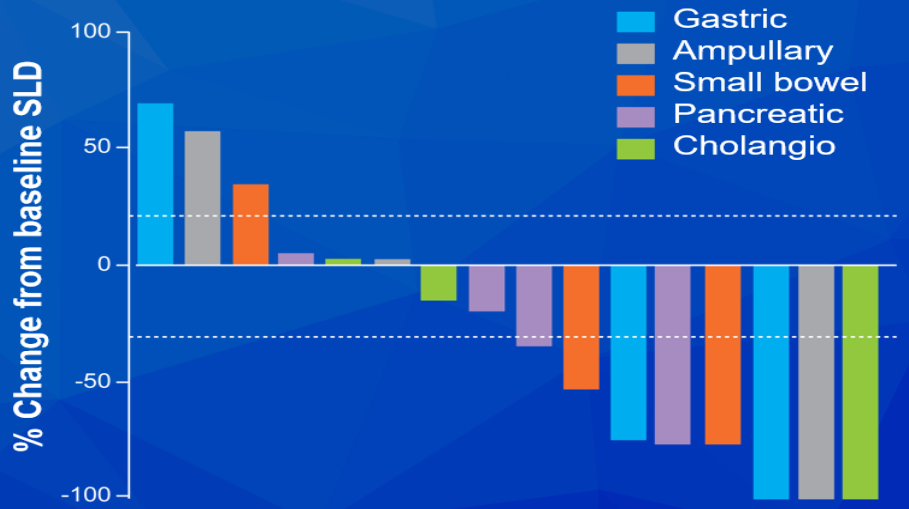


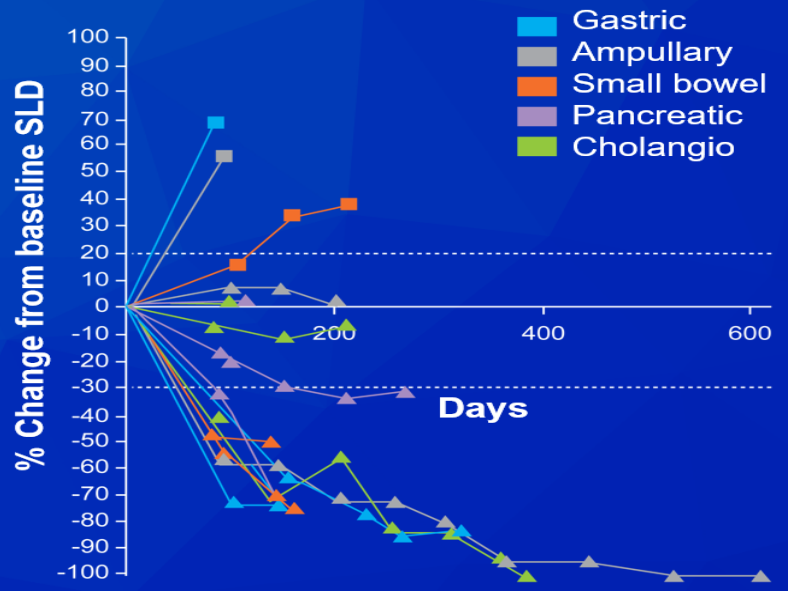
Bekaii-Saab T et al. *Proc ASCO* 2017;Abstract TPS4148; Bekaii-Saab T et al. *Proc ESMO World Congress GI* 2017;Abstract LBA-002.

PANKREAS KANSERİNDE YENİ TEDAVİ SEÇENEKLERİ

Response to Pembrozilumab in Mismatch Repair-Deficient Non-CRC GI Cancers

- 17 patients with non-CRC GI cancers (pancreatic cancer n = 4) deficient in mismatch repair, treated with pembrozilumab





Le D et al. Gastrointestinal Cancers Symposium 2016;Abstract 195.