

Complete Remission of Metastatic Pancreatic Cancer after Palliative PPPD and FOLFIRINOX Chemotherapy

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Irinotecan, oxaliplatin, 5-FU, leucovorin을 병합한 FOLFIRINOX 용법은 기능 상태(performance status)가 유지되는 전이성 췌장암 환자에서 그 효과가 입증되었고, 고식적 항암화학요법의 초기 치료로(1st line palliative chemotherapy) 권고되고 있다. 따라서, 저자들은 전이성 췌장암을 진단받은 환자에서 FOLFIRINOX 용법을 이용하여 고식적 항암화학요법을 시행하였고, 8차까지 시행 후 완전관해에 도달하였고, 그 후로도 현재까지 약 8개월 동안 완전관해가 유지되어 본 증례를 보고하고자 한다. 41세 여자 환자로 초기 평가에서는 수술적 치료가 가능한 췌장암으로 평가되어 수술을 시행하였으나, 수술 시 간전이 확인되어 고식적 유문보존 췌십이지장 절제술(palliative pylorus-preserving pancreaticoduodenectomy)을 시행받았다. 그 후 FOLFIRINOX 용법을 이용하여 고식적 항암화학요법을 시행하였고, 8차까지 시행 후 완전관해 상태에 도달하였고, 16차까지 시행한 현재까지 완전관해가 유지되고 있다.

Case Presentation (F/41)

- **Chief complaint**

- Jaundice
- Onset: 1 week ago

- **Present illness**

- 내원 3주 전부터 소화 불량에 발생하였고, 1주일 전부터 얼굴색의 변화 및 소변의 진한 갈색으로 변화가 발생하여 내원.

History

- **Past medical history**

- DM/HTN/CLD (-/-/-)

- **Family history**

- N-S

- **Social history**

- Smoking (-), Alcohol : social

R.O.S and P/Ex

• R.O.S

- Wt. loss (-)
- Easy fatigue (+), abdominal discomfort (+)
- A/N/V/D/C (-/-/-/-)

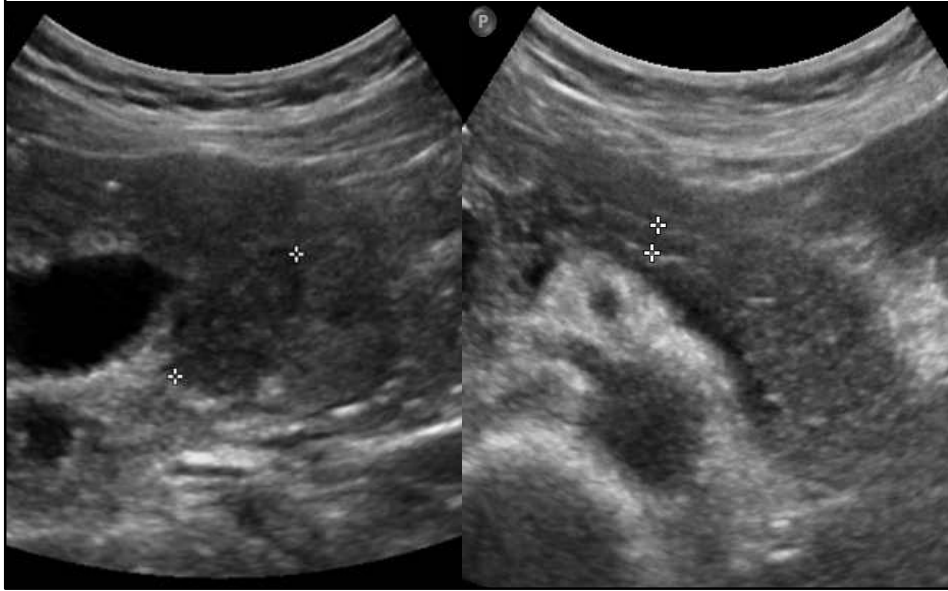
• P/Ex

- Not so ill looking, alert
- Icteric sclera (+)
- RHB without murmur, CBS without rale
- Soft & flat abdomen, T/RT (-/-)

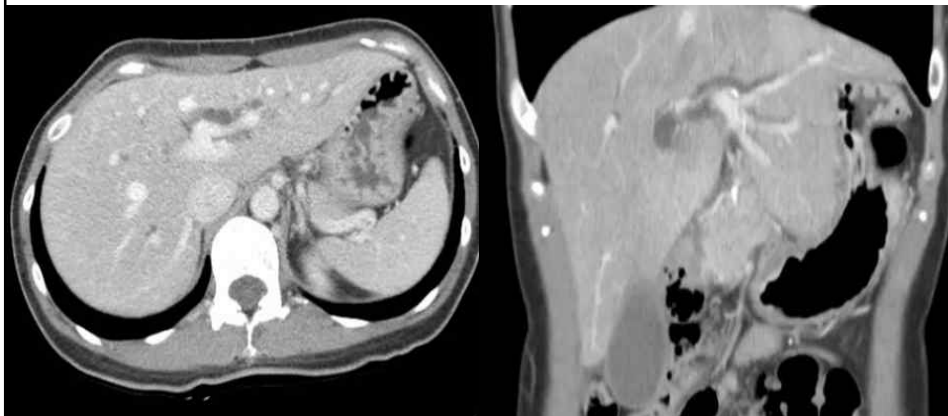
Laboratory Test

- CBC: 2,990 (seg 59%) – 12.6/32.3 - 218k
- BUN/Cr 8/0.71 mg/dL T.prot/Albumin 7.4/4.7 g/dL
- **T.bil 4.9** mg/dl, **ALP/ γ -GT 350/747** IU/L,
- **AST/ALT 324/477** IU/L, Amylase 60/ **lipase 353** U/L (23-300)
- CEA 1.3 ng/dl, **CA19-9: 103** U/ml (0-37)
- HBsAg/Ab (-/+), HAV ab (IgM) (-). Anti-HCV (-)

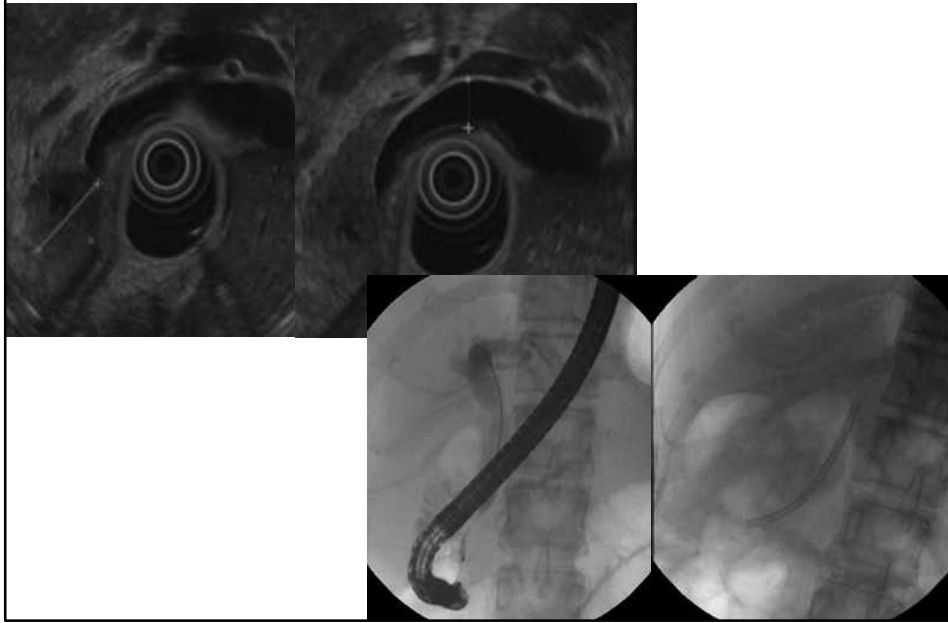
Abdominal US



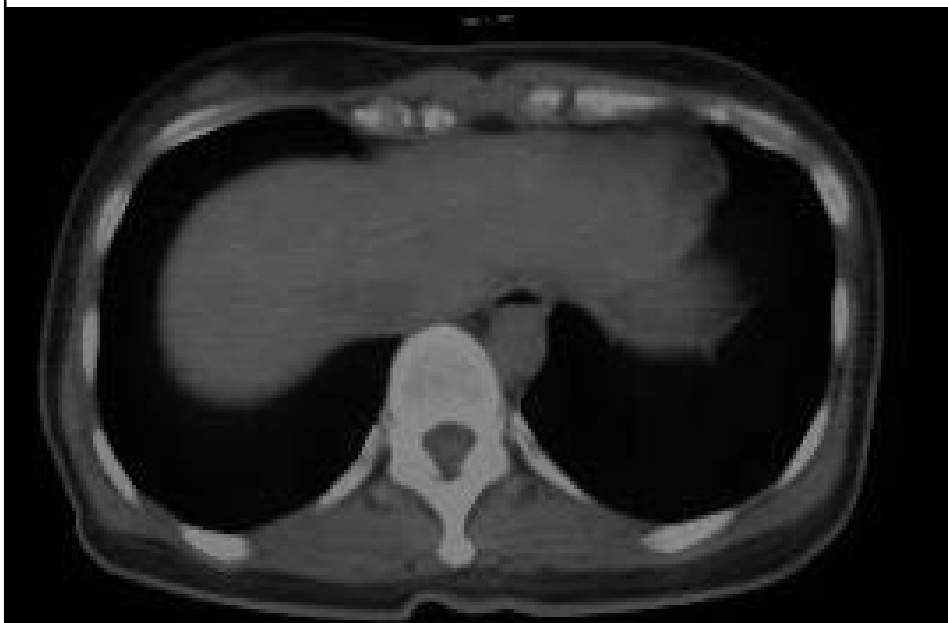
Pancreas Protocol CT



EUS & ERCP



PET-CT

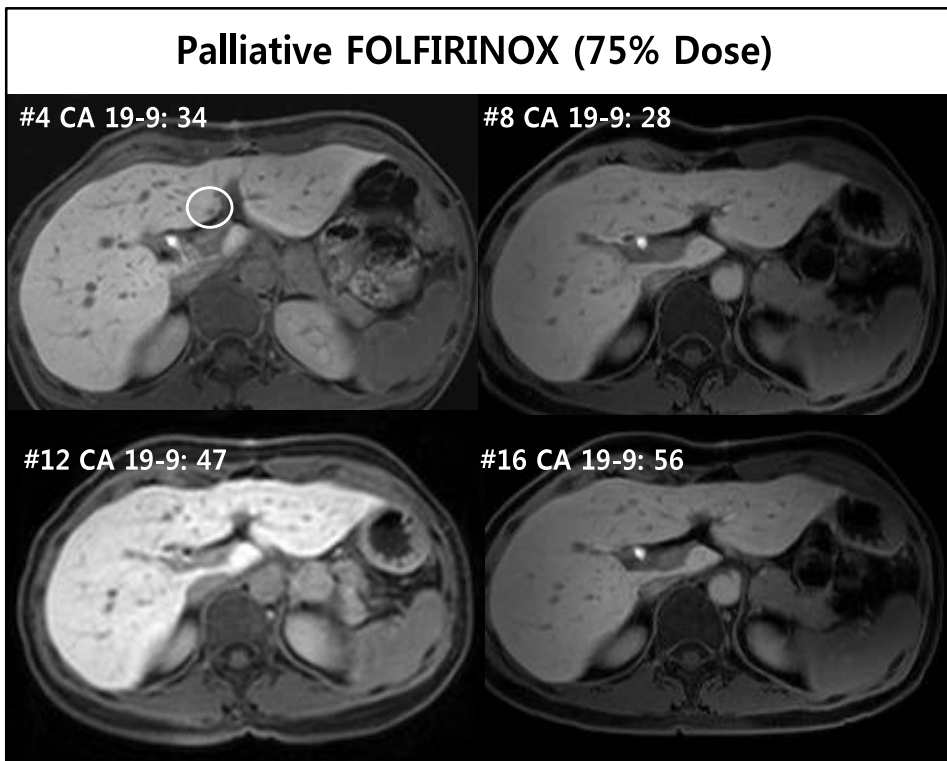
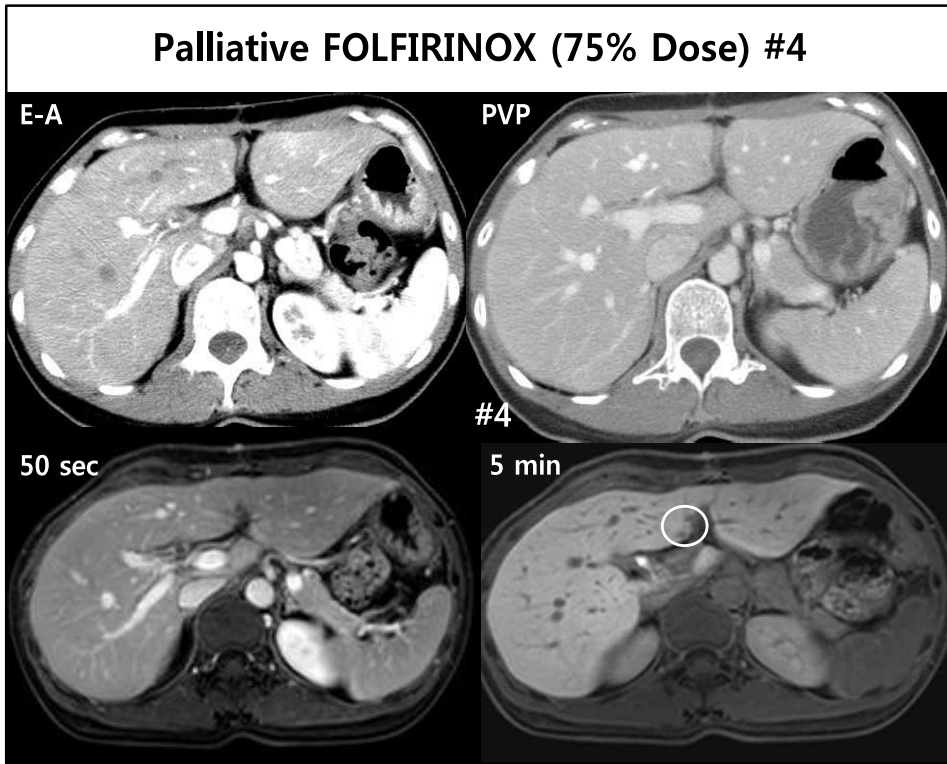


Assessment

- Resectable pancreatic cancer
- TNM Stage II (cT3NxM0)
- ECOG performance status: Grade 0
- PPPD 2013/3/13

Palliative PPPD : ADENOSQUAMOUS CARCINOMA

- 1) Gross type: nodular
 - 2) Location of tumor: head
 - 3) Size of tumor: 2.5×2.1×2.0 cm
 - 4) Depth of invasion: tumor extends beyond the pancreas but without involvement of the celiac axis or the superior mesenteric artery (**pT3**)
 - 5) Bile duct invasion: invasion of mucosa
 - 6) Duodenal invasion: invasion of muscularis propria
 - 7) Surgical margins: free of tumor (safety margin: pancreatic duct: 2.7 cm, common bile duct: 4.6 cm, duodenal proximal: 2.5 cm, duodenal distal: 21.0 cm, radial: 0.3 cm, retroperitoneal: 1.7 cm)
 - 8) Lymph node: **metastasis in nine out of 19 lymph nodes (pN1)** (peritumoral LN: 9/18, LN #12: 0/1)
 - 9) Angiolymphatic invasion: present
 - 10) Venous invasion: not identified
 - 11) Perineural invasion: present
 - 12) Tumor border: infiltrative
 - 13) Stromal reaction: not identified
 - 14) PanIN: not identified
 - 15) Associated findings: none
- Stage IV, pT3N1M1**
- [B] Common bile duct: Involvement of ADENOSQUAMOUS CARCINOMA
- [C] Duodenum: Involvement of ADENOSQUAMOUS CARCINOMA
- [D] Gallbladder, cholecystectomy: 1. Free of carcinoma 2. Chronic active cholecystitis
- Liver, "liver nodule", excisional biopsy: METASTATIC ADENOSQUAMOUS CARCINOMA from pancreas**



Modified FOLFIRINOX

- **2011.** PRODOGE4-ACCORD11 trial
: Standard Regimen of FOLFIRINOX
oxaliplatin 85 mg/m²
leucovorin 400 mg/m²
irinotecan 180 mg/m²
5-FU 400 mg/m² bolus → 2,400 mg/m² over 46 hours



2011

- Modified FOLFIRINOX as a dose reduction
① elimination of 5-FU bolus ② 25% reduction of irinotecan
③ 10% reduction of irinotecan + elimination of 5-FU bolus

Table 3. Most Common Grade 3 or 4 Adverse Events Occurring in More Than 5% of Patients in the Safety Population.*

Event	FOLFIRINOX (N=171) no. of patients/total no. (%)	Gemcitabine (N=171) no. of patients/total no. (%)	P Value
Hematologic			
Neutropenia	75/164 (45.7)	35/167 (21.0)	<0.001
Febrile neutropenia	9/166 (5.4)	2/169 (1.2)	0.03
Thrombocytopenia	15/165 (9.1)	6/168 (3.6)	0.04
Anemia	13/166 (7.8)	10/168 (6.0)	NS
Nonhematologic			
Fatigue	39/165 (23.6)	30/169 (17.8)	NS
Vomiting	24/166 (14.5)	14/169 (8.3)	NS
Diarrhea	21/165 (12.7)	3/169 (1.8)	<0.001
Sensory neuropathy	15/166 (9.0)	0/169	<0.001
Elevated level of alanine aminotransferase	12/165 (7.3)	35/168 (20.8)	<0.001
Thromboembolism	11/166 (6.6)	7/169 (4.1)	NS

* Events listed are those that occurred in more than 5% of patients in either group. NS denotes not significant.



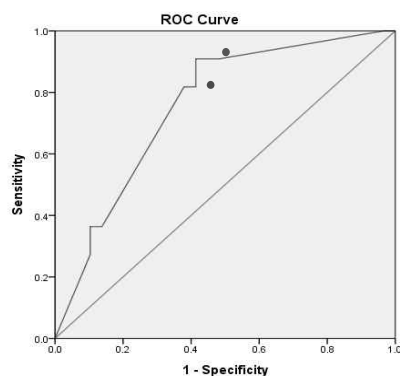
2013



2014

Georgios M Oikonomopoulos¹, Konstantinos N Syrigos², Evangelia Skoura³, Muhammad Wasif Saif⁴

RDI of FOLFIRINOX



Coordinates of the Curve
Test Result Variable(s): dose
Positive if Greater Than or Equal To*

	Sensitivity	1 - Specificity
224.00	1.000	1.000
232.50	1.000	.866
245.00	.909	.483
255.00	.909	.414
270.00	.818	.414
290.00	.818	.379
320.00	.364	.138
345.00	.364	.103
370.00	.273	.103
401.00	.000	.000

The test result variable(s): dose has at least one tie between the positive actual state group and the negative actual state group

a. The smallest cutoff value is the minimum observed test value minus 1, and the largest cutoff value is the maximum observed test value plus 1. All the other cutoff values are the averages of two consecutive ordered observed test values.

715P | Does Reduced Dose of FOLFIRINOX Guarantee Tumor Response in Unresectable Pancreatic Cancer? : Suggestion for the Minimal Relative Dose Intensity
J.-C. Lee, Y.S. Lee, K.-H. Paik, H.W. Kim, J. Kim, J.-H. Hwang
Seongnam/KR

Session Info: Poster Display, □ Poster Display session
Day/Date: Monday, September 29, 2014
Session Time: 12:45 PM - 1:45 PM
Room: Poster area

