



# FOLFIRINOX 항암치료 중 반복적 의식저하를 보이는 여환

Chan Su Park, So Jung Kim, Jung Hyun Jo, Hee Seung Lee,  
Moon Jae Chung, Jeong Youp Park, Seung Woo Park, Si Young Song, Seungmin Bang

Division of Gastroenterology, Department of Internal Medicine, Yonsei University College of Medicine

# Case 전O화, F/68

- **Chief complaint**

Itching sensation, Jaundice

- **Past History**

HTN/DM/Hepatitis/Pul.Tbc (+/-/-/-)

- **Social History**

Smoking/Alcohol : -/-

- **ROS & P/E**

Icteric sclera

- **Initial Lab. Finding**

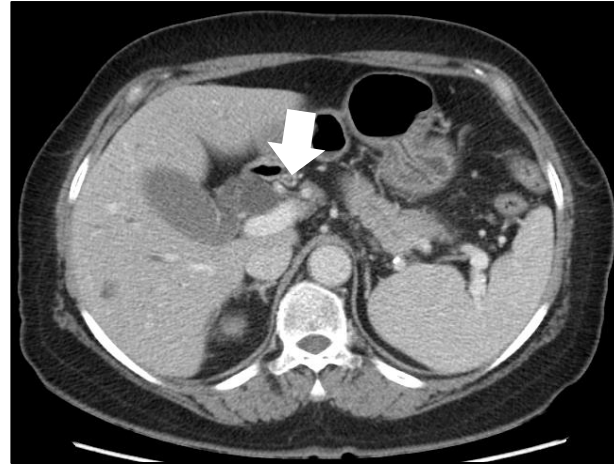
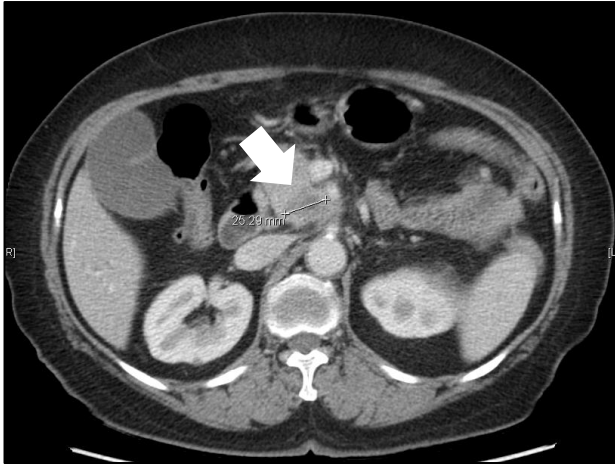
ALP/r-GT 937/1526 IU/L, AST/ALT 240/305 IU/L

Amylase/Lipase 324/1362 U/L

T.bil 7.7 mg/dL, CA19-9 9039 U/mL

# Radiologic findings

## Abdomen Pelvis CT (Outside imaging) 2019.5.20



## MRI 2019.5.23



# Diagnosis

- **Impression**

Pancreatic cancer, head, locally advanced

- **Plan**

- First line, palliative FOLFIRINOX chemotherapy
- ERCP with stent insertion for biliary decompression

# Progress

- **2019.6.2. Day 4 of 1st FOLFIRINOX chemotherapy**

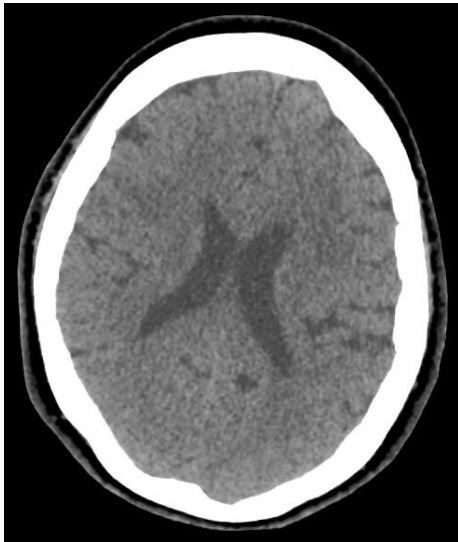
**Mental change** developed, Drowsy status (GCS 13)

P/E & N/E : V/S stable, Motor/Sensory intact, Flapping tremor (-)

Lab : **Ammonia 390ug/dL**, albumin 4.0g/dL, INR 1.13

Brain CT (2019.6.2) : Non specific finding

Brain MRI (2019.6.3) : Non specific finding



# Diagnosis

- **Impression**

: Hepatic encephalopathy with hyperammonemia

- **Treatment**

: Lactulose enema with IV hydration

- **2019.6.15 Day 3 of 2nd FOLFIRINOX chemotherapy**

**Mental change** developed, Drowsy status (GCS 13)

P/E & N/E : V/S stable, Motor/Sensory intact, Flapping tremor (-)

Lab : **Ammonia 509ug/dL**

# Background

European Journal of Cancer 129 (2020) 32–40



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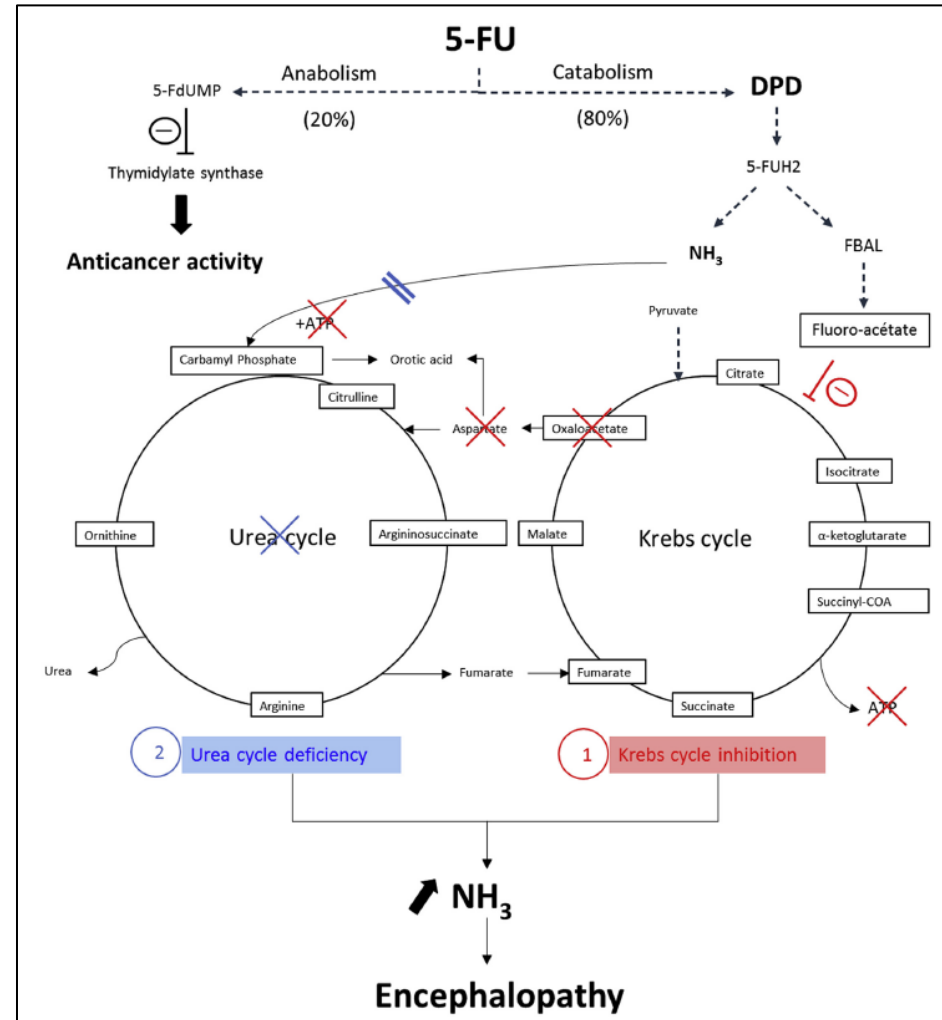
Original Research

## 5-Fluorouracil-induced hyperammonaemic encephalopathy: A French national survey

Alice Boilève <sup>a,1,\*</sup>, Laure Thomas <sup>b,1</sup>, Agnès Lillo-Le Louët <sup>c</sup>,  
Louise Gaboriau <sup>d</sup>, Laurent Chouchana <sup>e</sup>, Michel Ducreux <sup>a,f</sup>,  
David Malka <sup>a</sup>, Valérie Boige <sup>a</sup>, Antoine Hollebecque <sup>a</sup>,  
Dominique Hillaire-Buys <sup>g</sup>, Mathieu Jozwiak <sup>h</sup>



- **Symptom** : Loss of consciousness, Seizure, Confusion
- **Treatment** : 5-FU discontinuation, Lactulose, Low protein diet, RRT, Ammonium chelators, Uridine triacetate





# Diagnosis

- **Impression**

: 5-FU induced hyperammonemic encephalopathy

- **Treatment**

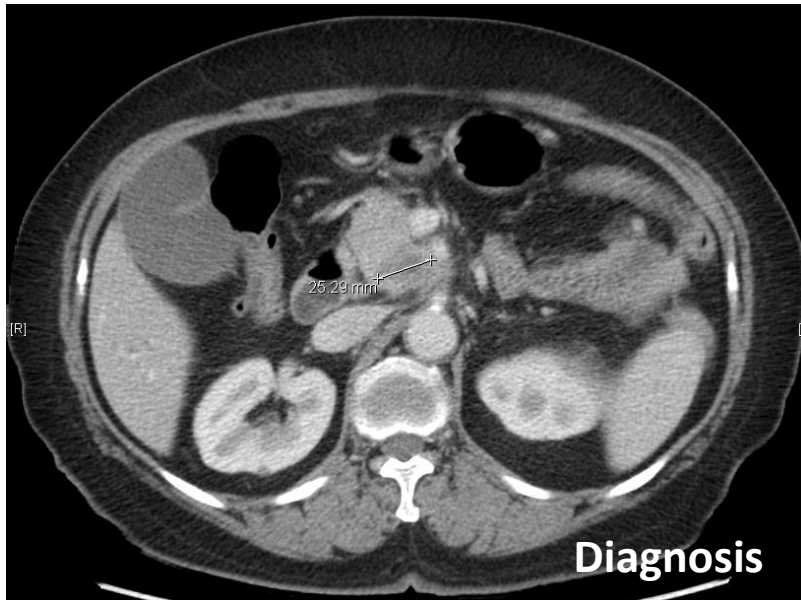
- 5-FU Stop
- Lactulose enema with IV hydration
- Conservative care

- **Plan**

- FOLFIRINOX rechallenge with reduced dose of 5-FU
- Closely monitoring during chemotherapy

# Progress

- **19.7.5. Day 1 of 3rd FOLFIRINOX chemotherapy**
  - 5-FU bolus skip & 50%DR
  - No mental change
- **19.7.20.~20.7.26. 4th~22th FOLFIRINOX chemotherapy**



# Progress

- **20.9.15. PPPD**

<Pathologic finding>

- Size: 1.9x1.6cm (pT1)
- Lymphovascular invasion (-)
- Perineural invasion (+)
- Resection margins (+)
- Lymph nodes, Free of carcinoma (pN0)

- **20.10.19. Radiotherapy**

- **20.11.7.~21.3.17. 23th~32th FOLFIRINOX chemotherapy**

- **Current NED status**

# Case Summary

## Ammonia

(단위 : ug/dL)

