*Original Article*

# Chronic Pancreatitis in Thai Patients: A Comprehensive Review of 236 Patients from One Institution

Supot Pongprasobchai, MD[1], Thidarat Luxsananun, MD[2]

[1] Division of Gastroenterology, Department of Medicine, Faculty of Medicine Siriraj Hospital, Mahidol University, Bangkok, Thailand
[2] Department of Medicine, Faculty of Medicine Siriraj Hospital, Mahidol University, Bangkok, Thailand

***Background:*** Reports of chronic pancreatitis (CP) in Thailand are rare. Clinical information is lacking.

***Objective:*** To study the etiology, genetics, presentations, clinical courses, complications, treatments, and outcomes of CP in Siriraj Hospital.

***Materials and Methods:*** Retrospective study of all CP patients during 2005 to 2018 was done. CP was diagnosed by abdominal radiography, ultrasonography, computed tomography (CT), endoscopic retrograde cholangiopancreatography (ERCP) or endoscopic ultrasonography (EUS). Etiology, genetics, presentations, clinical courses, complications, treatments and outcomes were analyzed.

***Results:*** There were 236 CP patients. The median follow-up was 37 months. There were 160 patients (68%) with alcoholic CP (ACP), 35 (15%) with early-onset idiopathic CP (E-ICP), 36 (15%) with late-onset idiopathic CP (L-ICP), 1 (0.4%) with tropical CP, 3 (1%) with hereditary pancreatitis (HP) and 1 (0.4%)with obstructive CP. Mean ages of onset were 47, 28 and 60 years in ACP, E-ICP and L-ICP, respectively ($p$<0.001). Male was predominant in all types of CP (98%, 40% and 56%; $p$<0.001). Initial presentations were abdominal pain (59%), recurrent acute pancreatitis (RAP, 22%), diabetes (DM, 8%) and steatorrhea (8%). Clinical manifestations during the course were abdominal pain in 89%, 89% and 83% ($p$ = 0.832), RAP in 41%, 48% and 11% ($p$ = 0.001), steatorrhea in 31%, 25% and 25% ($p$ = 0.661), weight loss in 38%, 31% and 44% ($p$ = 0.526), DM in 29%, 37% and 25% ($p$ = 0.502), respectively. Median time to pain relief were 33, 74, and 16 months ($p$ = 0.002). Common complications were pseudocyst (16%) and biliary obstruction (15%). *SPINK1* mutation was detected in 83% of E-ICP, 45% of L-ICP and 21% of ACP ($p$<0.001). *PRSS1* mutation was found in all HP. Medical therapy included analgesics (62%), pancreatic enzymes (76%) and antioxidants (9%). Endoscopic therapy was done in 48 patients (20%). Surgery was performed in 31 patients (13%).

***Conclusion:*** ACP, E-ICP and L-ICP are common etiologies of CP. Presentations were RAP, abdominal pain, DM and steatorrhea. Painless L-ICP was uncommon. Spontaneous pain relief occurred quickly. *SPINK1* mutation was common in ICP. Endoscopic and surgical therapy were required in one-fifth.

***Keywords:*** Chronic pancreatitis, Etiology, Genetics, Management, Manifestation, Natural course, Review

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Chronic pancreatitis (CP) is a chronic fibro-inflammatory disease of the pancreas[1], which impairs patients' quality of life (QoL) and significantly contributes to the morbidity and mortality. CP is a challenging and difficult to treat disease because the disease spectrum is wide, heterogeneous and complex. In order to handle the patients effectively, a thorough understanding of the disease is necessary.

There have been few comprehensive studies of CP from US[2] and Europe[3,4]. In Asia, there have been studies from Asia-Pacific[5], India[6], China[7], Japan[8] and Korea[9]. In Thailand, there have been some recent studies, which are focused study on abdominal pain[10] or review article[11]. There has been no comprehensive study of CP in Thailand that addresses details on the etiology, genetics, presentations, clinical courses, complications, treatments and outcomes.

From these reasons, it is unclear whether Thai CP patients are similar or different from those from Asia, US or Europe. The authors' personal perception from a large tertiary care center in Thailand suggests that Thai CP seems to be less severe, having faster spontaneous pain relief and having less complications. Whether this perception is true or not requires a systematic study. Thus, the present study aims to elucidate the etiology, presentations, diagnostic methods, genetic finding, disease progression, management, complications and outcome of CP at a tertiary hospital of Thailand.

**Correspondence to:**
Pongprasobchai S.
Division of Gastroenterology, Department of Medicine, Faculty of Medicine Siriraj Hospital, Mahidol University, Bangkok 10700, Thailand.
**Phone:** +66-2-4197281
**Email:** supot.pon@mahidol.ac.th

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## Materials and Methods

### *Study design and population*

The present study is a retrospective study

involving all adult patients (age >18 years), who were diagnosed with CP from the medical records (ICD-10 K86.0, alcohol-induced chronic pancreatitis, K86.1 other chronic pancreatitis), or from the endoscopic database (endoscopic retrograde cholangiopancreatography [ERCP] or endoscopic ultrasonography [EUS]) that was consistent with CP, and were followed-up at Siriraj Hospital, Bangkok, Thailand, from January 2005 to December 2018. Patients whose visits were less than 2 times were excluded.

### Diagnosis of CP

CP was diagnosed by meeting clinical and imaging criteria including calcification of pancreases from abdominal x-ray, moderate or marked criteria of Cambridge classification for ultrasonography (US)[12], computed tomography (CT)[12], ERCP[13] or suggestive or consistent criteria of Rosemont classification for EUS[14].

### Clinical data

Data regarding age, gender, comorbidity, alcohol drinking, smoking, familial history of CP, etiology of CP (as defined by TIGAR-O classification[15]), symptoms and signs, investigations, treatments and outcomes were collected using a designed case record form.

### Statistical analysis

Descriptive statistics were used to summarize the patients' characteristics. Continuous data was presented as mean and standard deviation, whereas categorical data was presented as frequency and percentage. The Chi-square test or Fisher's exact test was used to compare categorical variables among the three most common etiologic groups of CP. A Kruskal-Wallis H test was used to compare multiple continuous variables. All statistical analyses were performed using SPSS software. A two-sided $p$-value = 0.05.

### Sample size

The main objective of the present study was for the clinical manifestations of CP such as abdominal pain, exocrine insufficiency and diabetes. From the previous study[16], the prevalence of each manifestation was 99% for pain, 45% for DM and 41% for exocrine insufficiency. Thus, we calculate the sample size from prevalence exocrine insufficiency, which was the lowest. A sample of 140 patients would be enough to provide the trial with alpha level of 5% and precision of estimation 8.3%.

### Ethical consideration

The study was approved by the Siriraj Institutional Review Board (COA: Si747/2017).

## Results

The data of 1,513 eligible patients were reviewed, of which 1,277 patients were excluded; 773 due to incorrect diagnosis, 188 due to inadequate history, 142 due to no imaging studies, 81 due to no information on etiology, 61 due to the presence of only 1 visit, and 32 due to no clinical information. Finally, 236 patients with CP were analyzed.

### Etiology

According to the TIGAR-O classification of the etiology of CP, there were 160 patients (67.8%) with alcoholic CP (ACP), 35 patients (14.8%) with early-onset idiopathic CP (E-ICP), 36 patients (15.2%) with late-onset idiopathic CP (L-ICP), 3 patients (1.3%) with hereditary pancreatitis (HP), 1 patient (0.4%) with tropical CP, and 1 patient (0.4%) with obstructive CP (after pancreatic trauma) (Table 1). The median follow-up time was 37±48 months.

### Demographic data

The mean age of onset was 47, 28 and 60 years in ACP, E-ICP and L-ICP, respectively ($p$<0.001). Male was predominant in ACP and significantly different in frequency from ICP (98%, 40% and 56%, respectively; $p$<0.001). Hypertension and DM were significantly lower in E-ICP than ACP and L-ICP. Smoking was common in ACP but uncommon in E-ICP and L-ICP (92%, 26%, 17%, respectively; $p$<0.001) (Table 2).

### Initial presentations of CP

The initial presentations of all CP were abdominal pain (59%), recurrent acute pancreatitis (RAP, 22%), diabetes mellitus (DM, 8%) and steatorrhea/diarrhea (8%) (Table 3).

### Clinical manifestations during the course of CP

Clinical manifestations during the courses of ACP, E-ICP and L-ICP, respectively were abdominal pain/RAP 89%, 89% and 83% ($p$ = 0.832), RAP 41%, 49% and 11% ($p$ = 0.001), steatorrhea 31%, 26% and 25% ($p$ = 0.661), weight loss 37%, 31% and 44% ($p$ = 0.526), DM 28%, 37% and 25% ($p$ = 0.502). The 2 most common complications of CP were pancreatic pseudocyst (16%) and biliary obstruction (15%) (Table 4).

### Details and natural courses of abdominal pain

Abdominal pain occurred in 203 patients but only 195 patients had records of the pain details. Most patients had intermittent abdominal pain (92%). The location of pain

**Table 1.** Etiology of chronic pancreatitis in the 236 patients

| Etiology | Number (%) |
|---|---|
| Toxic-metabolic | |
| Alcohol | 160 (67.8) |
| Idiopathic | |
| Early-onset | 35 (14.8) |
| Late-onset | 36 (15.2) |
| Tropical | 1 (0.4) |
| Hereditary | 3 (1.3) |
| Obstruction | 1 (0.4) |

**Table 2.** Demographic data of the 3 most common types of chronic pancreatitis

| Demographic data | ACP (n = 160) | E-ICP (n = 35) | L-ICP (n = 36) | *p*-value |
|---|---|---|---|---|
| Gender, male | 156 (98) | 14 (40) | 20 (56) | <0.001 |
| Age (year), mean (SD) | 47 (12) | 29 (11) | 60 (15) | <0.001 |
| Comorbidity | | | | |
| Coronary heart disease | 3 (1.8) | 0 | 2 (5.5) | 0.327 |
| Hypertension | 35 (22) | 1 (3) | 15 (42) | <0.001 |
| Chronic kidney disease | 6 (3.75) | 0 | 2 (5.5) | 0.463 |
| Type 2 diabetes mellitus | 33 (20.6) | 0 | 12 (33.3) | 0.001 |
| Miscellaneous | 35 (21) | 4 (12) | 18 (50) | <0.001 |
| Alcohol drinking | 160 (100) | 10/33 (30) | 5/32 (16) | <0.001 |
| Smoking | 122/133 (92) | 8/31 (26) | 5/29 (17) | <0.001 |

Data are shown in n (%), unless specified.
ACP = alcoholic chronic pancreatitis; E-ICP = early-onset idiopathic chronic pancreatitis; L-ICP = late-onset idiopathic chronic pancreatitis; SD = standard deviation

**Table 3.** Initial presentations of the 3 most common types of chronic pancreatitis

| Initial manifestations, n (%) | ACP (n = 160) | E-ICP (n = 35) | L-ICP (n = 36) | *p*-value |
|---|---|---|---|---|
| Abdominal pain | 97 (61) | 19 (54) | 22 (61.1) | 0.742 |
| AP/RAP | 34 (21.2) | 11 (31.4) | 5 (13.9) | 0.195 |
| Steatorrhea/diarrhea | 12 (7.5) | 1 (2.8) | 4 (11.1) | 0.388 |
| Diabetic mellitus | 11 (6.9) | 3 (8.6) | 3 (8.3) | 0.792 |
| Others | 6 (3.8) [1] | 1 (2.8) [2] | 2 (5.6) [3] | 0.867 |

[1] Jaundice 2, gastric outlet obstruction 1, weight loss 1, gastrointestinal bleeding 1, accidental finding by CT 1; [2] Weight loss; [3] Weight loss 1, jaundice 1
ACP = alcoholic chronic pancreatitis, AP = acute pancreatitis, E-ICP = early-onset idiopathic chronic pancreatitis, L-ICP = late-onset idiopathic chronic pancreatitis, RAP = recurrent acute pancreatitis

is epigastrium 80%, left upper quadrant 15.4%, right upper quadrant 13.8%, left lower quadrant 1.5%, and periumbilical 2%. There were 34 patients whose pain score was recorded. The mean of pain score was 7.0±2.4 (Table 5).

Spontaneous pain relief was common. The median duration of abdominal pain before permanent pain relief in ACP, E-ICP and L-ICP were 33, 74, and 16 months, respectively ($p$ = 0.002) (Figure 1).

### *Diagnosis of CP*

Diagnoses of CP were made in orders by CT (56%), EUS (27%), plain abdomen (9%), ERCP (2%), MRI (0.4%), and histology (1%). Details of the diagnostic criteria met are shown in Table 6.

### *Genetic study*

*PRSS1* mutation was found in all 3 patients with HP. *SPINK1* mutation was detected in 83% of E-ICP, 45% of L-ICP and 21% of ACP ($p$<0.001).

### *Management*

Medical therapy of CP included analgesics (62%), pancreatic enzymes (76%) and antioxidants (9%). Insulin therapy was used in 60 to 80% of patients with DM. Endoscopic therapy was done in 48 patients (20%). Surgery was performed in 31 patients (13%). Denervation therapy was performed 8 patients (3%) (Table 7).

### *Outcomes*

During the follow-up, there were 142 patients (61%), who were lost to follow-up or had been referred back to their regional hospitals, 8 patients were dead (3%), and 81 patients (35%) remained having regular follow-up (Table 8).

**Table 4.** Clinical manifestation during the course and complications of the 3 most common types of chronic pancreatitis

| Clinical manifestations, n (%) | ACP (n = 160) | E-ICP (n = 35) | L-ICP (n = 36) | *p*-value |
|---|---|---|---|---|
| Abdominal pain (w/wo AP) | 142 (89) | 31 (89) | 30 (83) | 0.832 |
| AP/RAP | 67 (42) | 17 (49) | 4 (11) | 0.001 |
| Steatorrhea | 50 (31) | 9 (26) | 9 (25) | 0.661 |
| Diarrhea | 8 (5) | 2 (6) | 3 (8) | 0.680 |
| Weight loss | 60 (37.5) | 11 (31) | 16 (44) | 0.526 |
| Diabetic mellitus | 46 (29) | 13 (37) | 9 (25) | 0.502 |
| Jaundice | 20 (12.5) | 1 (3) | 4 (11) | 0.292 |
| Complications | | | | |
| Pseudocyst | 32 (20) | 2 (6) | 4 (11) | 0.062 |
| Pseudoaneurysm | 6 (4) | 1 (3) | 0 | 0.717 |
| Inflammatory mass of pancreatic head | 10 (6) | 0 | 1 (3) | 0.318 |
| Pancreatic duct obstruction | 11 (7) | 6 (17) | 4 (11) | 0.134 |
| Biliary obstruction | 27 (17) | 1 (3) | 8 (22) | 0.057 |
| Pleural effusion | 2 (1) | 1 (3) | 0 | 0.444 |
| Venous thrombosis | 10 (6) | 1 (3) | 1 (3) | 0.726 |
| Cancers | | | | |
| Pancreatic | 2 (1) | 1 (3) | 3 (8) | 0.538 |
| Extrapancreatic | 6 (4) | 0 | 0 | 0.538 |
| Acute coronary syndrome | 2 (1) | 0 | 1 (3) | 0.670 |

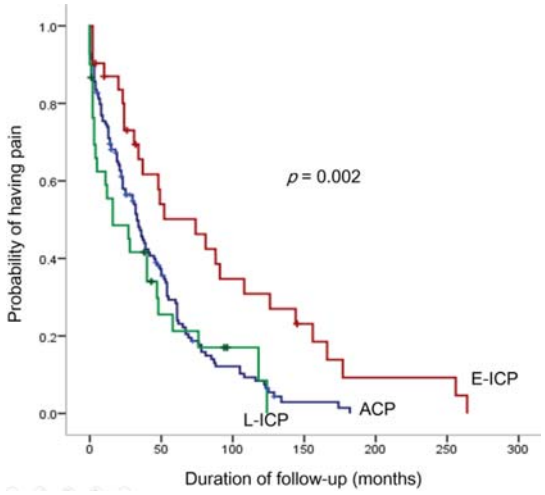
ACP = alcoholic chronic pancreatitis; AP = acute pancreatitis; E-ICP = early-onset idiopathic chronic pancreatitis; L-ICP = late-onset idiopathic chronic pancreatitis; RAP = recurrent acute pancreatitis

**Table 5.** Details of abdominal pain in 195 patients

| Details of abdominal pain | Number (%) |
|---|---|
| Type of pain, n (%) | |
| Intermittent (type A) | 180 (92) |
| Continuous (type B) | 15 (8) |
| Location, n (%) | |
| Epigastrium | 156 (80) |
| Left upper quadrant | 30 (15) |
| Right upper quadrant | 27 (14) |
| Left lower quadrant | 3 (1.5) |
| Periumbilical | 4 (2) |
| Pain score, mean (SD) | 7.0 (2.4) |

## Discussion

CP is a challenging and difficult to treat disease. One of the reason is that there are marked diversities of the disease. In order to understand the disease properly, a comprehensive study would be very helpful. The present study, to our knowledge, is the largest comprehensive review of CP in Thai patients.




ACP = alcoholic chronic pancreatitis; E-ICP = early-onset idiopathic chronic pancreatitis; L-ICP = late-onset idiopathic chronic pancreatitis

**Figure 1.** Natural course of abdominal pain of the 3 most common types of chronic pancreatitis.

The present study showed that the 3 most common etiologies of CP were ACP, E-ICP and L-ICP. These finding are similar to the studies from US[2], Europe[3,4], and Asia[5]. Nevertheless, it differs from India, where ICP is the most common etiology[6,16].

HP was rare and all had the well-known mutation, *PRSS1* mutation, similar to other studies. However, our study demonstrated *SPINK1* mutation in 21%, 83%, and 45% of ACP, E-ICP and L-ICP, respectively. These results were higher than other previous studies, in which *SPINK1* mutation was reported in only 2 to 27% of ACP, and 5 to 43% of all ICP[17]. Thus, it might suggest that genetics had a significant impact on Thai CP, particularly ICP.

The demographic data of Thai CP patients were quite similar to those from the 3 large classical series of CP[2-4]. In brief, ACP occurs mainly in men, while ICP does equally among both genders. Mean ages on onset for ACP, E-ICP and L-ICP were around 40 to 50, 20 to 30 and 50 to 60 years, respectively.

The initial presentations and clinical presentations of all types of CP in the present study aligned very well with those of the other studies[2-4]; most commonly with AP/RAP and abdominal pain and less prevalent with steatorrhea and DM. The only difference was that, painless CP (CP without history of abdominal pain) was uncommon in L-ICP in this study. Most previous studies reported painless CP in

**Table 6.** Details of the diagnostic criteria of chronic pancreatitis

| Criteria of diagnoses | | Number (%) |
|---|---|---|
| US (n = 8) | | |
| Cambridge: | moderate | 0 |
| | marked | 8 (100) |
| CT (n = 133) | | |
| Cambridge: | moderate | 5 (4) |
| | marked | 128 (96) |
| MRI (n = 1) | | |
| Cambridge: | moderate | 0 |
| | marked | 1 (100) |
| ERCP (n = 5) | | |
| Cambridge: | moderate | 2 (40) |
| | marked | 3 (60) |
| EUS (n = 64) | | |
| Rosemont: | suggestive | 27 (42) |
| | consistent | 37 (58) |

CT = computed tomography; ERCP = endoscopic retrograde cholangiopancreatography; EUS = endoscopic ultrasonography; MRI = magnetic resonance imaging; US = ultrasonography

**Table 7.** Management of chronic pancreatitis

| Management | ACP (n = 160) | E-ICP (n = 35) | L-ICP (n = 36) | *p*-value |
|---|---|---|---|---|
| Medications | | | | |
| Opioid analgesia | 50 (31) | 12 (34) | 8 (22) | 0.650 |
| Non-opioid analgesia | 13 (8) | 7 (20) | 4 (11) | 0.097 |
| Gabapentin | 15 (9) | 1 (3) | 5 (14) | 0.272 |
| Pregabalin | 2 (1) | 1 (3) | 1 (3) | 0.316 |
| Tricyclic antidepressant | 20 (12.5) | 9 (26) | 4 (11) | 0.108 |
| Antioxidants | 8 (5) | 12 (34) | 2 (6) | <0.001 |
| Pancreatic enzyme | 125 (78) | 22 (63) | 29 (81) | 0.126 |
| Oral hypoglycemic agents | 25/66 (38) | 2/10 (20) | 7/20 (35) | 0.235 |
| Insulin | 32/66 (48) | 7/10 (70) | 12/20 (60) | 0.211 |
| Insulin+oral hypoglycemic agents | 9/66 (14) | 1/10 (10) | 1/20 (5) | 0.814 |
| Endoscopic therapy | 36 (22.5) | 6 (17) | 6 (17) | 0.484 |
| Surgery | 24 (15) [1] | 5 (14) [2] | 2 (6) [3] | 0.494 |
| Denervation therapy [4] | 6 (4) | 0 | 2 (6) | 0.463 |

[1] Modified Puestow 5, Whipple's operation 11, double bypass 2, US-guided drainage of pancreatic pseudocyst 2, cholecystectomy with T-tube placement 1, angioembolization of pancreatic aneurysm 1, exploratory laparotomy with abdominal toilet 1, percutaneous drainage and embolization 1; [2] Modified Puestow 2, Roux-en-Y choledochojejunostomy with pancreatic stone removal 1, Roux en Y choledochojejunostomy with liver and pancreatic head mass biopsy 1 and ESWL 1; [3] Whipple's operation 1 and exploratory laparotomy with liver and pancreas biopsy 1; [4] Celiac plexus block

ACP = alcoholic chronic pancreatitis; E-ICP = early-onset idiopathic chronic pancreatitis; L-ICP = late-onset idiopathic chronic pancreatitis

**Table 8.** Outcomes of the 3 most common types of chronic pancreatitis

| Outcomes | ACP (n = 160) | E-ICP (n = 35) | L-ICP (n = 36) |
|---|---|---|---|
| Alive | 52 (32) | 13 (37) | 16 (44) |
| Dead | 6 (4) | 0 | 2 (6) |
| Unknown | 102 (64) | 22 (63) | 18 (50) |

ACP = alcoholic chronic pancreatitis; E-ICP = early-onset idiopathic chronic pancreatitis; L-ICP = late-onset idiopathic chronic pancreatitis

around half of L-ICP, However, L-ICP in Thai patients had painless disease in only 17%. The reason is unknown but it is possible that many painless L-ICP might have been be undiagnosed by physicians due to the absence of pain.

In the present study, diagnoses of CP were performed mostly by CT and EUS. For CT, it is well accepted to be the first line investigation of CP[18]. However, the common use EUS in the present study might be just due to the local preference of our center.

Abdominal pain is the hallmark of CP. It is suggested to classify abdominal pain pattern to intermittent (type A) or continuous (type B) pain[19]. Previous studies showed that type A pain is slightly more common (50 to 60%)[19], less impairs patients' QoL[20] and more responsive to conservative treatment[10,19] than type B pain. The present study demonstrated that >90% of Thai CP patients had intermittent type A pain. This might explain our perception early that why CP in Thai patients seem to be less severe and less difficult to treat.

Spontaneous pain relief is a well-known phenomenon in CP. Most previous studies confirmed the presence of spontaneous pain relief in almost any type of CP, but it varied greatly in the timing after onset[2-4]. In general, spontaneous pain relief occurs around 10 to 12 years, 5 to 27 years and 9 to 12 years after onset of ACP, E-ICP and ICP, respectively[2-4]. In the present study, the median time to pain relief was only 2.8, 6.1, and 1.3 years, respectively, which were much shorter than others[2-4] but aligned well with one of our previous studies[10]. Taken together, we might say that abdominal pain of Thai CP patients was less severe than others because it was more commonly intermittent type A pain, which was responsive to conservative treatment, and spontaneous pain relief occurred early in the course of the disease.

Regarding to the treatment, most patients in the present study were treated conservatively by variety of medical treatment, including analgesics, neuroleptics, pancreatic enzyme, and antioxidants. Endoscopic therapy and surgery were performed in only 20% and 13%, respectively, which were much lower than the rates performed in other series (20 to 60%)[3,4]. This again might be explained by the less severe course of abdominal pain in Thai patients as mentioned above.

The present study has many strengths. To our knowledge, it is the largest series of CP in Thai patients. The authors used standard imaging definitions for the diagnosis of CP, therefore, made it clear to enroll only definite cases. Etiology was classified systematically with the most recent TIGAR-O classification[15] and natural course of pain was explored in details.

Limitations of the present study are mainly from the retrospective nature of the study. Many data such as details of imaging studies and the long-term outcomes were lost. There was also limitation on the classification of DM as type 2 DM or pancreatic DM because we could only retrieve this information from the medical recorded. Therefore, further prospective multicenter study is still required.

## Conclusion

ACP, E-ICP and L-ICP were the 3 most common etiologies of CP. Common presentations of CP in orders were RAP/abdominal pain, DM and steatorrhea. Painless L-ICP was uncommon. Intermittent type A pain is very common and spontaneous pain relief occurred shortly within the median of 1 to 6 years. *SPINK1* mutation was very common in ICP. Endoscopic therapy and surgery were still required in one-fifth of patients.

## What is already known on this topic?

The 3 most common etiologies of CP are ACP, E-ICP and L-ICP, which had different presentations and natural courses. Painless L-ICP occurs in 50 to 60% of L-ICP. Intermittent and continuous pain account almost equally. Spontaneous pain relief is difficult to predict. *SPINK1* mutation is present in one-third of ICP.

## What this study adds?

ACP, E-ICP and L-ICP were also the 3 most common etiologies of Thai CP patients. Painless L-ICP was uncommon. Intermittent type A pain is very common and spontaneous pain relief occurred shortly within the median of 1 to 6 years. *SPINK1* mutation was very common in ICP.

## Conflicts of interest

The authors declare no conflict of interest.

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## โรคตับอ่อนอักเสบเรื้อรังในผู้ป่วยไทย: การทบทวนผู้ป่วยอย่างละเอียด 236 รายจากหนึ่งสถาบัน

สุพจน์ พงศ์ประสบชัย, ธิดารัตน์ ลักษณานันท์

***ภูมิหลัง:*** การศึกษาเรื่องโรคตับอ่อนอักเสบเรื้อรังในประเทศไทยมีน้อยมาก และยังขาดข้อมูลต่างๆ ทางคลินิก

***วัตถุประสงค์:*** เพื่อศึกษาสาเหตุ พันธุกรรม อาการแสดง การดำเนินโรค ภาวะแทรกซ้อน การรักษา และผลการรักษาของโรคตับอ่อนอักเสบเรื้อรังที่โรงพยาบาลศิริราช

***วัสดุและวิธีการ:*** เป็นการศึกษาแบบย้อนหลังของผู้ป่วยโรคตับอ่อนอักเสบเรื้อรังระหว่างช่วงปี พ.ศ. 2548 ถึง พ.ศ. 2561 โรคตับอ่อนอักเสบเรื้อรังวินิจฉัยจากภาพถ่ายรังสีช่องท้องพบหินปูนที่ตับอ่อน, อัลตราซาวนด์, เอกซเรย์คอมพิวเตอร์ หรือการส่องกล้องฉีดสีท่อน้ำดีและตับอ่อนเข้าได้กับเกณฑ์แคมบริดจ์ หรือการส่องกล้องอัลตราซาวนด์ เข้าได้กับเกณฑ์โรสมอนท์ โดยจะทบทวนและวิเคราะห์สาเหตุ พันธุกรรม อาการแสดง การดำเนินโรค ภาวะแทรกซ้อน การรักษา และผลการรักษา

***ผลการศึกษา:*** มีผู้ป่วยโรคตับอ่อนอักเสบเรื้อรัง 236 ราย มัธยฐานของระยะเวลาติดตามผู้ป่วย 37 เดือน เป็นโรคตับอ่อนอักเสบเรื้อรังจากสุรา 160 ราย (ร้อยละ 68), โรคตับอ่อนอักเสบเรื้อรังไม่ทราบสาเหตุในคนอายุน้อย 35 ราย (ร้อยละ 15), โรคตับอ่อนอักเสบเรื้อรังไม่ทราบสาเหตุในคนสูงอายุ 36 ราย (ร้อยละ 15), โรคตับอ่อนอักเสบเขตร้อน 1 ราย (ร้อยละ 0.4), โรคตับอ่อนอักเสบพันธุกรรม 3 ราย (ร้อยละ 1) และ 1 ราย (ร้อยละ 0.4) เกิดจากการอุดกั้นท่อตับอ่อน อายุที่เริ่มวินิจฉัยอยู่ที่ 47, 28 และ 60 ปีในผู้ป่วยโรคตับอ่อนอักเสบเรื้อรังจากสุรา โรคตับอ่อนเรื้อรังไม่ทราบสาเหตุในคนอายุน้อย และในคนอายุมากตามลำดับ (ค่าพีน้อยกว่า 0.001) ผู้ป่วยส่วนใหญ่เป็นผู้ชาย (ร้อยละ 98, 40 และ 56 ตามลำดับ, ค่าพีน้อยกว่า 0.001) อาการนำเริ่มแรกที่พบบ่อยที่สุดคือ การปวดท้องพบได้ร้อยละ 59, ตับอ่อนอักเสบเฉียบพลันซ้ำๆ ร้อยละ 22, เบาหวานร้อยละ 8 และถ่ายเป็นน้ำมันหรือท้องเสียร้อยละ 8 อาการแสดงระหว่างติดตามการรักษาพบอาการปวดท้องและ/หรือตับอ่อนอักเสบเฉียบพลับซ้ำๆ ร้อยละ 89, 89 และ 83 ตามลำดับ (ค่าพีเท่ากับ 0.832), พบตับอ่อนอักเสบเฉียบพลับซ้ำๆ ร้อยละ 41, 48 และ 11 ตามลำดับ (ค่าพีเท่ากับ 0.001), ถ่ายเป็นน้ำมันร้อยละ 31, 25 และ 25 ตามลำดับ (ค่าพีเท่ากับ 0.661), น้ำหนักลดร้อยละ 38, 31 และ 44 ตามลำดับ (ค่าพีเท่ากับ 0.526), เบาหวานร้อยละ 29, 37 และ 25 ตามลำดับ (ค่าพีเท่ากับ 0.502) ค่ามัธยฐานของเวลาที่จะหายปวดท้องเองอยู่ที่ 33, 74, และ 16 เดือน ตามลำดับ (ค่าพีเท่ากับ 0.002) ภาวะแทรกซ้อนที่พบบ่อยที่สุดคือ ภาวะถุงน้ำเทียม (ร้อยละ 16) และการอุดกั้นทางเดินน้ำดี (ร้อยละ 15) พบการกลายพันธุ์ของจีน *SPINK1* ร้อยละ 83 ของผู้ป่วยโรคตับอ่อนเรื้อรังไม่ทราบสาเหตุในคนอายุน้อย, ร้อยละ 45 ของผู้ป่วยโรคตับอ่อนเรื้อรังไม่ทราบสาเหตุในคนสูงอายุ และร้อยละ 21 ของผู้ป่วยโรคตับอ่อนอักเสบเรื้อรังจากสุรา (ค่าพีน้อยกว่า 0.001) พบการกลายพันธุ์ของจีน *PRSS1* ในผู้ป่วยโรคตับอ่อนอักเสบพันธุกรรมทุกคน ผู้ป่วยได้รับยาแก้ปวดร้อยละ 62, น้ำย่อยตับอ่อนร้อยละ 76 และยาแอนติออกซิแดนท์ร้อยละ 9 ผู้ป่วยได้รับการรักษา โดยการส่องกล้อง 48 ราย (ร้อยละ 20) และผ่าตัด 31 ราย (ร้อยละ 13)

***สรุป:*** สาเหตุที่พบบ่อยของโรคตับอ่อนอักเสบเรื้อรังคือ โรคตับอ่อนอักเสบเรื้อรังจากแอลกอฮอล์ โรคตับอ่อนเรื้อรังไม่ทราบสาเหตุในคนอายุน้อย และโรคตับอ่อนเรื้อรังไม่ทราบสาเหตุในคนสูงอายุ อาการนำที่พบบ่อยคือ ปวดท้อง ตับอ่อนอักเสบเฉียบพลับซ้ำๆ เบาหวาน และถ่ายเป็นน้ำมัน ผู้ป่วยโรคตับอ่อนเรื้อรังไม่ทราบสาเหตุในคนสูงอายุที่ไม่มีอาการปวดท้องพบน้อย พบการกลายพันธุ์ของ *SPINK1* บ่อยในผู้ป่วยโรคตับอ่อนเรื้อรังไม่ทราบสาเหตุ อาการปวดสามารถหายเองได้เร็ว การรักษาโดยการส่องกล้องและผ่าตัดจำเป็นใน 1 ใน 5