Cirugía y Cirujanos. 2016;84(4):288–292

CIRUGÍA y CIRUJANOS

Órgano de difusión científica de la Academia Mexicana de Cirugía

Fundada en 1933

www.amc.org.mx www.elsevier.es/circir

ORIGINAL ARTICLE

Surgical treatment of pancreatic pseudocysts☆

José Luis Martínez-Ordaz*, Carlos Toledo-Toral, Norma Franco-Guerrero, Mauro Tun-Abraham, Luis Manuel Souza-Gallardo

Servicio de Gastrocirugía, Hospital de Especialidades de Centro Médico Nacional Siglo XXI, Instituto Mexicano del Seguro Social, México, D.F., Mexico

Received 7 April 2015; accepted 14 September 2015

KEYWORDS
Pancreatic pseudocyst;
Pancreatitis;
Surgery

Abstract
Background: A pancreatic pseudocyst is the collection of pancreatic secretions surrounded by fibrous tissue caused by pancreatic disease that affects the pancreatic duct. Clinical presentation is variable. Management includes percutaneous, endoscopic or surgical drainage and resection.
Material and methods: Review of a cohort of patients with pancreatic pseudocyst in a third level hospital. An analysis was performed on the demographic data, aetiology, clinical presentation, radiological and laboratory findings, type of surgical procedure, complications, recurrence and mortality. The statistical analysis was performed using Chi squared and Student's *t*-tests, with a $p < 0.05$.
Results: A total of 139 patients were included, of whom 58% were men and 42% were women, with median age of 44.5 years. Chronic pancreatitis was the most common aetiology, present in 74 patients (53%). The main complaint was abdominal pain in 73% of patients. Median size was 18 cm (range 7–29) and the most frequent location was body and tail of the pancreas. Internal surgical drainage was selected in 111 (80%) patients, of whom 96 were cystojejunostomy, 20 (14%) had external surgical drainage, and 8 (6%) resection. Complications were, pancreatic fistula (12%), haemorrhage (4%), infection (4%), and other non-surgical complications (4%). Complication rate was higher if the cause was chronic pancreatitis or if the management was external surgical drainage. Recurrence rate was 6%, and a mortality rate of 1%.

PII of original article: S0009-7411(15)00229-7

☆ Please cite this article as: Martínez-Ordaz JL, Toledo-Toral C, Franco-Guerrero N, Tun-Abraham M, Souza-Gallardo LM. Tratamiento quirúrgico del seudoquiste de páncreas. Cir Cir. 2016;84:288–292.

* Corresponding author at: Hospital de Especialidades de Centro Médico Nacional Siglo XXI, Instituto Mexicano del Seguro Social, Av. Cuauhtémoc 330, 3.er piso, Colonia Doctores, Del. Cuauhtémoc, México, D.F. C.P. 06725, Mexico. Tel.: +52 55 5627 6900ext.21436.
E-mail address: jlmo1968@hotmail.com (J.L. Martínez-Ordaz).

Conclusion: Surgical management is a viable option for the management of pancreatic pseudocyst with a low complication and recurrence rate.

PALABRAS CLAVE
Seudoquiste pancreático;
Pancreatitis;
Drenaje quirúrgico

Tratamiento quirúrgico del seudoquiste de páncreas

Resumen
Antecedentes: El seudoquiste de páncreas es la colección de secreciones pancreáticas rodeada de una pared fibrosa secundaria a enfermedad aguda o crónica. El tratamiento incluye drenaje percutáneo, endoscópico o quirúrgico y resección.

El objetivo es presentar la experiencia quirúrgica en pacientes con seudoquiste de páncreas.
Material y métodos: Cohorte retrospectiva de 139 pacientes con diagnóstico de seudoquiste pancreático, durante 13 años en un hospital de tercer nivel. Se estudiaron datos demográficos, etiología, presentación clínica, datos radiológicos y de laboratorio, indicación, tipo de procedimiento quirúrgico realizado, complicaciones, recurrencia y mortalidad. Se realizó prueba de Chi cuadrada para las variables nominales y T de Student para variables continuas.
Resultados: Fueron 81 hombres (58%) y 58 mujeres (42%), con una mediana de edad de 44.5 años. En 74 pacientes (53%) la etiología fue pancreatitis crónica. El síntoma más frecuente fue dolor abdominal en el 73%. La mediana de tamaño fue 18 cm (7-29) y la localización más frecuente fue: cuerpo y cola en 75 pacientes (54%). El tratamiento fue: drenaje interno en 111 pacientes (80%), (96 cistoyeyunoanastomosis), en 20 (14%) drenaje externo y resección en 8 (6%). Las complicaciones fueron: fístula pancreática (12%), hemorragia postoperatoria (4%), infección (4%) y complicaciones no quirúrgicas (4%). La tasa de complicaciones fue mayor cuando el diagnóstico era pancreatitis crónica y se realizó drenaje quirúrgico externo ($p < 0.05$). Hubo recurrencia en 7 pacientes (6%). Dos pacientes fallecieron (1%).
Conclusión: El tratamiento quirúrgico es una opción en el manejo del seudoquiste pancreático, con baja tasa de complicaciones y recurrencia.

Background

The pancreatic pseudocyst is defined as a localised collection of fluid rich in amylase and other enzymes surrounded by a fibrous wall or granulation tissue, and resulting from an episode of acute pancreatitis, chronic pancreatitis, pancreatic trauma or extrinsic obstruction of the pancreatic duct.[1,2] It has to have persisted for a minimum of 4 weeks with or without communication to the pancreatic duct system.[3]

The current prevalence of pancreatic pseudocysts is 10–20% in patients with chronic pancreatitis. Alcohol consumption is the cause in 65% of cases, followed by vesicular lithiasis in 15%.[1,3]

Diagnosis is based on clinical, biochemical and radiological findings.[1] Treatment strategies for patients with pancreatic pseudocyst have changed and continue to evolve. Management includes percutaneous drainage, internal endoscopic drainage, internal and external drainage, surgery and resection.[4–6]

This study reports the experience and results obtained in patients diagnosed with a pancreatic pseudocyst who underwent surgical treatment in a third level hospital over a period of 13 years.

Material and methods

A retrospective cohort was formed from all patients diagnosed with a pancreatic pseudocyst who underwent surgery in the period between 1 January 2000 and 31 December 2013 in the Gastric Surgery Department of the *Hospital de Especialidades de Centro Médico Nacional Siglo XXI*, Mexican Social Security Institute.

Demographic data were obtained (age and gender, aetiology (acute, chronic, idiopathic or traumatic pancreatitis), clinical presentation (pain, early satiety, jaundice, abdominal tumour), laboratory data (haemoglobin, leukocytes, serum amylase and lipase), radiological findings (location, number – single or multiple- and size), indication and type of surgical procedure undertaken (internal drainage, cystogastroanastomosis, cystoduodenoanastomosis, cystojejunoanastomosis – external drainage or resection) and complications (wound infection, postoperative bleeding, pancreatic or intestinal fistula, dehiscence of the surgical wound, pulmonary and infectious thromboembolisms). Recurrence rate and mortality were evaluated during follow-up.

The data were collected on a database and the statistical analysis was performed using SPSS software version 16 (SPSS