Letters to the Editor

Traumatic pseudocyst of the pancreas

Dear Editor:

The compression of the pancreas against the spine is a rare (2-4%) and severe complication of blunt abdominal trauma, frequently (60-80%) associated with injury to the pancreas and spleen. A 35 year old male with past medical history of HBV infection was referred to our hospital from a private medical centre with a radiological diagnosis (CT scan) of haematoma in the lesser peritoneal cavity, secondary to blunt abdominal trauma from a car crash five days earlier.

The patient’s complaint was a continuous epigastric pain and anorexia without other symptoms. At exploration he was hemodynamically stable, the abdominal cavity was distended and tender at palpation with slow peristalsis. Follow up tomography confirmed the presence of a low density liquid collection of 7.5 x 7.5 cm between the stomach and the pancreas, suggestive of a possible pancreatic pseudocyst. To confirm the diagnosis decision was made to practice radiology guided puncture, obtaining samples for study (Fig. 1). Its biochemical analysis confirmed high levels of amylase (35,000 UI/L). Due to the patient’s good clinical evolution and the stability of the abdominal collection in serial ecographic follow up, he was discharged after a 5 day observation. Successive radiological controls were done from the follow up visit informing of a reduction in the size of the collection until its complete resolution 15 months after the accident.

Discussion

Morgagni was the first to describe a pancreatic pseudocyst in 1761. Today it’s defined as a liquid collection rich in amylase, developed from the pancreatic enzymes, without a proper wall. Instead it’s formed by a non-epithelialised lining made of granulation tissue and surrounding organs (1). Traumatism to the pancreas is the third most frequent cause of pseudocyst formation after chronic and acute pancreatitis; being the American Association for the Surgery of Trauma (1) the most frequently used classification. Blunt impact of bicycle and motorcycle handlebars against the pancreas with duct system injury is responsible for 69% of pseudocyst in children (2). Early diagnosis can be extremely difficult due to the late onset of clinical manifestations seen in retroperitoneal injuries (6-8 hours) and to the characteristics of the symptoms that may be unspecific (epigastric pain irradiated to the back associated with moderate abdominal defence) (3). Routine blood analysis are of low utility, in fact amylase serum elevation is the most frequently observed and appears only in 60-70% of the cases (1), all this conditions a delay in diagnosis and treatment responsible for the high mortality (20-30%) (1,2). Abdominal CT scan is the gold standard for detecting early parenchyma injuries (4). MRI and
endoscopic retrograde cholangiopancreatography (ERCP) are useful in confirming the integrity of the main pancreatic duct (3,6). The natural evolution is the spontaneous resolution in up to 60% of the cases, reason why it’s universally accepted that the treatment of choice in non complicated pseudocyst is observation and radiological follow up for 6-8 weeks (1-6).

Indications for drainage are the persistence of the pseudocyst with increase in size after 6 weeks of follow up and also the appearance of symptoms or complication. Simple aspiration has been abandoned because of high level of recurrence (70%) (5,6). Percutaneous drainage with pig-tail catheter insertion is indicated in patients with elevated surgical risk and in immature or infected collections, with a 90% of success. An endoscopic trans-gastric or trans-duodenal drainage is preferred in post traumatic or secondary to chronic pancreatitis pseudocyst, and also in those in close relation with the GI lumen with thin walls (< 1 cm). In the presence of fistula an endoscopic trans-papillary stent can be placed to facilitate its resolution (5,6). Pancreatic resection is limited only for haemorrhagic cases of pseudocysts, multiple lesions in chronic pancreatitis or those with painful symptoms (1). Surgical drainage is the procedure of choice for lesions with thick walls generally secondary to acute necrotizing pancreatitis.

M. C. Casamayor Franco, C. Yánez Benitez, E. Hernando Almudi, L. A. Ligorré Padilla, F. Zorraquino Ponz1 and F. Baque Sanz

Services of General Surgery and 1Radiology.
San Jorge Hospital. Huesca, Spain

References