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Autoimmune Pancreatitis: Associated Hepatomegaly and Splenomegaly

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Abstract

Introduction: The Pancreatitis autoimmune is an entity which has recently raised interest in its description, associated in the majority of reports from the international specialised literature to chronic pancreatitis events, pancreatic cancer, and associated to demonstrations of autoimmunity, with presence of autoantibodies. Autoimmune pancreatitis is a benign fibroinflammatory disease of the pancreas of probable autoimmune origin, which includes 2 different phenotypes: type 1 (lymphoplasmacytic sclerosing pancreatitis) and type 2 (idiopathic duct-centric pancreatitis). Its clinical presentation as obstructive jaundice in patients with a pancreatic mass is common and therefore it must be included in the differential diagnosis of pancreatic neoplasia. Many diagnostic criteria have been described. The most famous are the HISORT criteria of the Mayo Clinic and the international consensus criteria of 2011.

Clinical case: We present the case of a woman aged 33, with clinical data of abdominal pain, nauseous state, vomits and presence of hepatomegaly of 17 cm (6.69 in) below the flange costal and splenomegaly weighing 975 gm (2.1 lb) in addition to fever reaching 38.8°C (101.8°F) of nocturnal predominance and diaphoresis with 32 months of evolution and weight loss around 4 kilos (11lb) for the last 4 months.

Discussion: The pancreatitis autoimmune is an entity little known with less than 100 cases registered in the literature, however, immune data prevail, a presumptive diagnosis was done with assessment criteria of: pancreas diffuse enlargement (which is of the essence), anti-bodies and data histopathologic of periductal fibrosis or segmentary of the main pancreatic duct and lymphoplasmocitary infiltration in pancreas and the answer to steroids was significant. But both Japanese and American society in their publications, to establish the diagnostic criteria, are met, especially from Japanese society, which establishes 3 of the published criteria, such as alterations in image, serology, response to steroid treatment and absence of malignancy, It is practically the same in the criteria of HISORT with the exception of histological studies, Japan Pancreas society, establishes 3 criterions present at the time of diagnosis by Japan Pancreas society initially and currently are still using.

Key words: Autoimmune pancreatitis; Study fever; Hepatomegaly and Splenomegaly in study; Autoimmune disease;

Introduction

The term of pancreatitis autoimmune (AIP) was used by first time in 1995 by Yoshida and cols, associated to autoimmune mechanisms without evidence of an autoimmune illness so the name or term, of pancreatitis autoimmune is proposed considered a form of chronic pancreatitis, over 30% of patients who present this image unrelated to alcohol consumption or a clear cause [1]. It has had previous names such as idiopathic chronic pancreatitis, chronic sclerosing pancreatitis medical reports have described this entity associated to autoimmune diseases of collagen [2, 3]. It is an entity considered as rare and the number of reports in the specialized medical literature are scarce, mainly described in Asia (Japan) and among Caucasian population like in Europe and North America, the studies reported Latin America are reports isolated cases more in Brazil and Mexico, few in Chile and Colombia 30. And the USA and Europe are: bit cases in Mayo clinic 29 cases 15, 16.

Table A: Differences between autoimmune pancreatitis type 1 and type 2

	AIP -1	AIP-2
Age	> old 61.8 ± 14.24	> Young 37.7 ± 5.7
Sex	Male dominance	Male sex > that women
Territory	Japon-Korea 80% cases Europe-USA Not fully know	Europe –USA Not fully know Japon-Korea lower number of cases
Spectrum	Males : 3.5:1	Males 2:1
Histology	Sclerosing lymphoplasmacytic pancreatitis. Positive cells for IgG4. findings with high frequency	Pancreatitis of the idiopathic central duct Epithelial granulocytic lesions Frequency Normal.
Serology I gG4	80% > 5 to 10 times	17% or less.
Response to steroids	Excellent	Excellent

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The AIP, has two categories (table A) Type 1: is characterized by a systemic disorder with elevated IgG4-positive cells in serology, It is the most common form worldwide, accounting for almost all cases in Asia (Japan-Korea) almost 80% all cases [15, 16].

The Type 2: primarily found with affectation pancreas and with a lack of IgG4-positive cells and is more difficult to diagnose [16, 17].

The clinical spectrum of disease are; AIP type 1 the average age presentation around 61-62 years at the time of diagnosis, frequency in males more higher 2:1 proportion, Serology IgG4 were frequency higher 80% > 140 mg/dl. Histology, demonstrates affectation like classic pattern periductal rich in IgG4 infiltration, enlargement pancreas, affectation others organs. Type 2 were younger around 39 years, proportion 77% to 55% female. In type the imagen with enlargement pancreas hypo density homogenous A long stricture of the pancreatic duct, without significant associated dilatation, is also highly characteristic of AIP, Serology: IgG4 uncommon elevated in Type 2, could be present in healthy people around 5% and 10% of patients with pancreatic cancer have elevated IgG4 [17, 18, 19]. The IgG4 antibodies alone have not value for diagnosis of AIP.

The autoimmune pancreatitis is characterised by a group of data such as, episodes of abdominal pain, sometimes with events of jaundice, not always as type 2, the laboratory findings associated to this entity are: an increase in IgG4 concentrations, presence of auto-antibodies such as: Antibody anti lactoferrin antibodies carbonic-anti-anhydrase II, antibodies anti double-stranded DNA [6, 7]. Histologic appearance was found in consistent shape, fibro sclerosis retroperitoneal, involves extra pancreatic ducts and pancreatic lymphoplasmacytic infiltration Type 1 [4, 8, 9]. The data of reported image studies by Hiroyuki et al established in Computed Tomography studies: 1 [6, 10]. Increase in size of the diffusely attenuated pancreas, that may involve all the pancreas; that is head, body and tail in different intensity, without adenopathies, without vascular involvement, with presence of small calcifications, can present a peri-pancreatic halo with smooth edges without affectation of the peri-pancreatic fat and to retro-peritoneal level, with data of fibrosis, these findings are not present in all the reported patients. The IMR dynamic studies T1 report findings of abnormal intensity in diffuse shape, low intensity with respect to the liver, in T2 the intensity of the pancreatic parenchyma is greater to that of the liver and halo around of the head pancreas can be observed.

Case presentation

The 33 year-old woman, with history of epigastric abdominal pain with 3 years of evolution, associated to food intake, nocturnal diaphoresis, preceded occasionally by thermal elevations reaching 38.8~C (101.8°F), for 24 months, the abdominal pain intensity increased with food intake and persistent nauseating state and occasional postprandial vomits, the diaphoresis increased in intensity, and showed painful oral ulcers in the margin of tongue, without presence of ulcers in any another part of the economy and 2 months before her registration to hospital she had a 4 kilograms (11lb) weight loss. The rest of the symptoms and signs were frequent twice a week, she was admitted as fever in study case in the internal medicine area. This Table (1) showing the clinical data our patients and the reported.

Table 1: Comparison of clinical characteristics at the onset between patients reported

Clinical characteristics	Patients Reference	Our patient	Diagnostic value
Age	66years old	32 years	
Male/female	4.7;1	1	
Obstructive jaundice	Often	Not	
Abdominal pain	Yes 60%	Yes	
Body weight loss (.5 kg in the past	Not always	Yes	
3 months)	90%	Yes	
Pancreatic ductal change	Often	Not	
IgG4 (mg/dl)	> 130mg/dl	136mg/dl	x
Antinuclear Antibodies	Yes	Yes	x
Affectation other organs	Yes	Yes	x
Sclerosing cholangitis	Yes	Not	
Retroperitoneal fibrosis	Could be	Not	
Sialoadenitis	10-12%	Not	
Enlargement Liver	Never reported	Yes	
Enlargement Spleen	Never reported	Yes	
Enlargement Pancreas	100%	Yes	x
Malignity Excluded	Pancreas or Others	Yes	x
Steroid Response	80%	Yes	x
Histology features	fibrosis and prominent infiltration of lymphocytes	Not realized	

Studies of laboratory

Hemoglobin 12.3 g/dl, Platelets 130 K/dl, WBC: Leucocytes 4,56 K/ml, neutrophils 6300/ml Lymphocytes 1,200/ml, Monocytes 200/ml, Eosinophils 50/ml, Basophils 20/ml, Proofs of Hepatic Function: TGO 29 iu/L, TGP 20 iu/L, total Bilirubin 0.48 mg/dl, Albumin 4.11gr/dl, globulins 2.4, alkaline Phosphatase 111 iu/L, Lactic dehydrogenase 444 U/L (1.47ukat/L l), dcANA Highly positive (56 iu /L), anti-Sm negative, C-ANCA negative, P-ANCA 2 negative, Direct Coombs slightly positive, Rose Bengal test Negative, Bone marrow culture for Brucella negative to 2, 10, 30 days, Serology for virus of hepatitis B, C Negative, ELISA

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HIV-1 and 2 negative, PCR (Polymerase Chain Reaction) to CMV, negative, Single Virus Herpes negative, C3 and C4 (1.3mg/L and 0.32mg/L respectively)normal ranks, CA 19-9:5.07 iu/ml (normal 0-37), Amylase 120 U/L (ranks 28-120 iu/L), Lipase 36.5 U/L (ranks 13-60) Reactive C Protein 34mg/dl, (<5.0), ESR (Erythrocyte Sedimentation Rate) 82mm/hr (Ranks: 0-20mm/hr), microglobulin Beta- 2 (2.97 mg/L), negative feverish reactions for Brucella, Rickettsia's, Borelli, Coxiella.

Studies of image

Computed Tomography: Dimensions of Pancreas Head 3.68 cm (1.44in), Body 2.89 cm (1.13in), Tail 1.98 cm (0.779 in) of width, homogeneous density (with hypodensity) with halo presence in the pancreas head (Figure 1), Liver of diminished density and with 17 centimeters (6.69 in) cephalous-caudal growth, 14 centimetres (5.51 in) long spleen and 975 gr (2.1lb) weight (Figure 2), Negative re-troperitoneal ganglia, the largest with 0.6 cm diameter (0.236 in), Abdominal Echography: With size increase in pancreas globally with hypo density, smooth edges, without peripancreatic fat involvement, Punch-aspiration hepatic biopsy with Trucut 16 Fr needle, guided by echography with negative cytology for neoplasic cells (Figure 2, Figure 3) stain of Ziehl-Nielsen negative. With the data of autoimmune Pancreatitis according to the classification by tomography of Hiroyuki and clinical criteria of the Japanese Society of Pancreas in the absence of neoplasia confirmation. We present a Table (2) that showing as met the criterion for diagnosis. Our patient has the criterion necessary [24, 29].

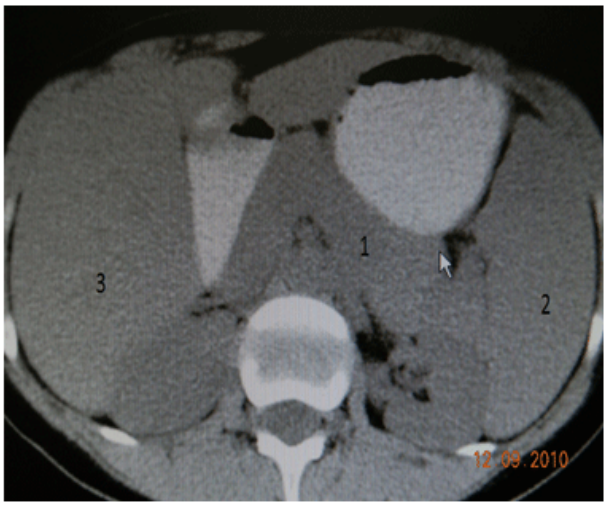

Figure 1: Pancreas grown and homogeneous density decreced (1), Splenomegaly (2) and Enlarged liver (3).

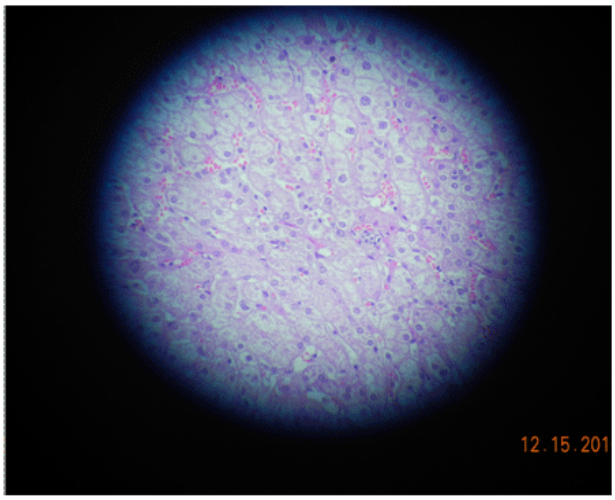

Figure 2: Biopsy trucut 16 Fr, of Liver , show ultrastructure normal.

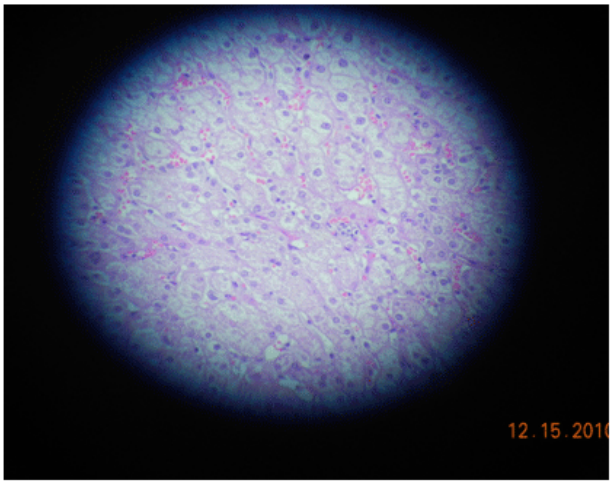

Figure 3: Normal liver histopathology without evidence neoplasm.

Table 2: For Diagnostic
USA: * **The Mayo clinic HISORt criteria are based on 5 main diagnostic criteria**
1) histological findings, 2) imaging, 3) serology, 4) other organ involvement and 5) response to steroid therapy.
Japan/Asian In 2002 the Japan Pancreas society
There are 3 criterions present: 1) Enlargement of the pancreas by Imaging, 2)Serology positive: IgG, IgG4, autoantibodies, as antinuclear antibodies orRheumatoid factor positive, 3) Steroid response: < 3 weeks.

Posterior Care

We started treatment with steroids 0.5mg/ Kg/day, with Symptomatic improvement, confirming diagnosis of autoimmune pancreatitis and ambulatory control.

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Discussion

The autoimmune pancreatitis is an entity little known with few registered cases in the literature until the year 2000, around 100 reported cases, increasing quickly, with predominance in men there are not data that support the presence of exocrine insufficiency, which is little frequent, has like common data the epigastric abdominal pain, moderate intensity without data of obstructive jaundice, the differential diagnostic includes predominantly the chronic pancreatitis with a prevalence of 6% of all the chronic pancreatitis and/or pancreatic cancer [13, 14].

In this case, the clinical data are: epigastric abdominal pain, diaphoresis or nocturnal sweating, presence of oral ulcers, around 11 pounds weight loss, in the last 6 months before her evaluation. The image studies suggest diagnostic of autoimmune pancreatitis according to criteria of the Japanese Society of the Pancreas (Japan Pancreas Society) with study of Image (Computed Tomography of abdomen) with late image to evaluate the diffuse enlargement of the pancreas hypo density of homogeneous type, The serologic findings are positive to antinuclear antibodies, as well as inflammation indicators as high ESR and very high reactive C protein (High title antinuclear antibodies), IgG4, positive antibodies alone cannot used for diagnosis, controversy, have been considered benign have suggested that they could be protective anti-anhydrase carbonaceous antibodies, positive anti-lactoferritine antibodies, negative anti-SM, and many others antibodies have been associated to AIP, but are not used for diagnosis just with serology [20, 21 & 22].

With answer to steroids to the <3 weeks with decrease of the pancreatic size and resolution of the clinical data's of presentation. According to the Japan Pancreas Society the definite diagnostic is the presence of image alterations and any the criteria of serologic findings, and response to treatment. The patient fulfils three of the four diagnostic criteria such as radiological, serological and response to treatment without relation to other autoimmune pathologies. And The HISORT at the Mayo Clinic of USA are 5 (five) criteria for diagnosis [23]. The Autoimmune Pancreatitis that presents clinical data and of suggestive image of chronic pancreatitis, and assumes it is part of an autoimmune systemic illness that can affect organs and pancreatic tissues but with infrequent and sustained recurrence the reference, in our case, although it is even early, the decrease of the pancreatic volume and resolution of clinical data attract attention with steroid treatment (0.5mg/kg/day), without presence of data of pancreatic failure.

Use of steroid a Although there are no prospective randomized studies on steroid use in Auto Immune Pancreatitis (AIP), but significantly fewer patients who received steroid therapy experienced a relapse compared to those who received only supportive care unknown mechanism the steroid therapy [24]. Different patterns of steroid tapering have been proposed by medical centers around the world in USA is used 40-60mg/day for 4 weeks as regular treatment in Europe, some doctors use a initial doses of 60mg /day, Japan and Korea is same that USA, the drugs election is Prednisolone [24, 25 & 26]. After which the dose is tapered by 5 mg per week with an attempt to withdraw the steroid completely.

Unlike the Japanese practice of using maintenance therapy in most patients, in the United States maintenance therapy is used only in those patients who relapse after an initial course of steroids [28, 29].

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