Commentary

CLINICAL INVESTIGATION

Brief note of Immunoglobulin (IgG4) sclerosing cholecystitis-camouflaging gall bladder malignancy

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Introduction

Commentary

IgG4-related sickness is an uncommon systemic condition that can affect any organ in our body. In 2003, Kamisawa proposed a new common nomenclature for systemic IgG4-related autoimmune illnesses called IgG4 Related Disorder (IgG4-RD) to group these distinct organs involved in this unusual identical auto-immune phenomena. Because clinical and radiological imaging signs overlap, many illnesses are challenging to detect clinically and radiologically. These illnesses include symptoms that are similar to both inflammatory and malignant diseases, making a diagnosis, therapy, and forecasting the natural course of disease extremely challenging.

Isolated IgG4 cholecystitis masquerades as cancer are uncommon in the literature, and we provide a case of IgG4 cholecystitis masquerading as gall bladder mass/cancer. The majority of cases of IgG4 cholecystitis are linked with Autoimmune Pancreatitis (AIP), and solitary cases of IgG4 cholecystitis are uncommon. Our case report will aid in the diagnosis of IgG4 cholecystitis anytime a gall bladder mass is seen on imaging, and it also contributes to the current literature on solitary gall bladder involvement in IgG4 cholecystitis.

64-year-old woman, postmenopausal, non-smoker, and non-alcoholic, living in a rural section of the state, with a history of diabetes mellitus and poor glycemic control (HbA1C-10.4) due to the patient's failure to take oral hypoglycemics on a regular basis. She was examined because she had discomfort in her right upper abdomen and had been experiencing dyspeptic symptoms for a year. A tertiary care hospital referred the patient to us. Her vital signs were normal, and her ECOG (Eastern Cooperative Oncology Group) performance status was 1. Her GPE (General Physical Examination) was normal, and her abdomen was sore in the right hypochondriac and epigastric regions.

The patient was scheduled for a triple-phase CECT scan abdomen, which revealed a constricted gall bladder with uneven asymmetrical thickening of 6 mm in the fundal area. Fat planes next to the liver were poorly delineated. In the interaortocaval area, subcentimetric lymphadenopathy. The pancreas, bile duct, and the remainder of the organ were all OK. The risk of gall bladder cancer was first considered in the context of a porcelain gall bladder with a 6 mm uneven thickness. Due to a suspicion of gall bladder cancer, the patient had an ultrasound-guided Fine needle aspiration procedure. Gall bladder needle aspiration cytology was inconclusive. Patient scheduled surgery due to abnormal thickening. After 3 weeks of intense discomfort, the patient had an extended cholecystectomy and had satisfactory glycemic control. There was no ascites or metastases when the abdomen was opened. The fundus of the gall bladder was thickened, and there were several stones in the lumen. Along the hepatoduodenal ligament and the inter-aortocaval area, centimetre lymph nodes were discovered. Patient had a smooth surgical recovery and was released the next day.

IgG4-cholecystitis is a complete ruse with signs and symptoms that are identical to those of gall bladder cancer. The etiopathogenesis of this condition is unknown, however it is commonly assumed that it

is a symptom of an autoimmune process triggered by lymphoplasmacytic contact in the organ in question. It might be difficult to make a conclusive diagnosis based on clinical and radiological findings depending on the organ or system involved. To get around this problem, we require a thorough grasp of the clinical manifestations of IgG4-related disorders.

This will eventually lead to a reduction in unneeded invasive surgical procedures, which will benefit the patient and reduce the need for useless exercise. When any aberrant or worrisome clinical/radiological symptoms are present, it is recommended to include this uncommon condition in the differential diagnosis along with gall bladder cancer. According to Zhang, the rate of IgG4-C misdiagnosis is 9.63%. This condition is more frequent in older adults who have a stronger preference for males. On sonography, patients with IgG4 cholecystitis have hypoechoic, circumferential thickening of the gallbladder wall. Sonography revealed gall stones and asymmetrical thickening of 6 mm in the gall bladder, as it did in our case. On a CECT scan, it's the delayed elevation in IgG4-related cholecystitis that distinguishes it from gall bladder cancer. There was a 6 mm asymmetrical thickening in our instance, as well as a porcelain bladder.

On T2 weighted MR images, it revealed low-signal smooth diffuse gallbladder wall thickening with delayed enhancement post-contrast. On imaging, the thickness or expansion of the organ is usually attributable to lymphocyte and plasma cell infiltration, as well as concomitant fibrosis. To diagnose IgG4 cholecystitis, at least two of the three key criteria must be met, as well as the presence of more than 50% plasma cells per high power field. All three of the primary requirements were met in our scenario. IgG4 was positive in 80 plasma cells, however, Serum IgG was within normal limits, although Shin reported only 15% plasma cell per high power field in their case study with IgG4 cholecystitis.

Many studies support the use of serum IgG4, but it is not routinely used because it is not elevated in all cases of IgG4-related disease, and its accuracy is only 40 percent to 50 percent. Furthermore, in developing countries like India, it is difficult to get done due to financial and cost constraints. Carbohydrate Antigen (CA 19-9), Carcino-Embryonic Antigen (CEA), and Carbohydrate Antigen (CA-125) have more established roles in distinguishing IgG4 or other benign diseases from ca gall bladder. Increased IgG4/IgG ratios of >40% favor IgG4-related disease and are regarded as a key characteristic in diagnosing IgG4-related sickness.

Gall bladder cancer is treated with radical surgery such as prolonged cholecystectomy and regional lymphadenectomy. As a result, before beginning any treatment, a solid and confident diagnosis is essential. Any mistake may result in overtreatment of IgG4 cholecystitis at the expense of additional post-operative surgical consequences that can be fully avoided if IgG4 cholecystitis has been ruled out in cases where gall bladder cancer is suspected.

Patients exhibiting symptoms of an autoimmune-like illness are more likely to develop biliary problems during follow-up, as seen by a high risk of recurrent cholangitis and strictures at the hepaticojejunostomy site, however, this is not statistically significant.