

OR reserved for those lesions with higher-grade, high mitotic rate, and positive resection margins in the ER specimen.

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REFERENCES

- Riddell RH, Petras RE, Williams GT, et al. Tumors of the intestines. In: *AFIP Atlas of Tumor Pathology*. Series 3, Fascicle 32. Washington, DC: Armed Forces Institute of Pathology; 2003.
- Modlin IM, Lye KD, Kidd M. A 5-decade analysis of 13,715 carcinoid tumors. *Cancer*. 2003;97:934–959.
- Mahmud N, Tomizawa Y, Stashek K, et al. Endoscopic resection of duodenal carcinoid tumors: a single-center comparison between simple polypectomy and endoscopic mucosal resection. *Pancreas*. 2019;48:60–65.
- Kim JS, Kim BW. Endoscopic resection or surgical management for nonampullary duodenal neoplasms? *Transl Gastroenterol Hepatol*. 2018; 3:26.
- Kim GH, Kim JI, Jeon SW, et al. Endoscopic resection for duodenal carcinoid tumors: a multicenter, retrospective study. *J Gastroenterol Hepatol*. 2014;29:318–324.
- Abraham A, Singh J, Siddiqui G, et al. Endoscopic management of a primary duodenal carcinoid tumor. *Case Rep Gastroenterol*. 2012; 6:135–142.
- Navaneethan U, Lourdasamy D, Mehta D, et al. Endoscopic resection of large sporadic non-ampullary duodenal polyps: efficacy and long-term recurrence. *Surg Endosc*. 2014;28: 2616–2622.

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Japanese Clinical Diagnostic Criteria for Autoimmune Pancreatitis, 2018 Revision of Japanese Clinical Diagnostic Criteria for Autoimmune Pancreatitis, 2011

To the Editor:

In 2010, the International Consensus Diagnostic Criteria (ICDC) for autoimmune pancreatitis (AIP) were proposed to address the pathogenesis, clinical features, and treatment of AIP on a global level.¹ The ICDC were the first to enable the diagnosis and comparison of the 2 distinctive subtypes of AIP: type 1 and type 2. Because the diagnosis of AIP in Western countries was based mainly on pathological findings using endoscopic ultrasound-guided fine needle aspiration (EUS-FNA) in contrast to the Japanese diagnostic procedures giving priority to image findings using endoscopic retrograde pancreatography (ERP) especially for differentiation from pancreatic cancer, the ICDC were exempt from the ERP procedure, whereas previous Japanese diagnostic criteria and Asian criteria required it.^{2–4} The ICDC also adopted the diagnostic item of steroid therapy effectiveness as a treatment option.

However, the ICDC were somewhat complicated for general use, and extremely few cases of type 2 AIP have been confirmed in Japan. Accordingly, the Japan Pancreas Society (JPS) and the Research Program on Intractable Disease from the Ministry of Labor, Health, and Welfare of Japan (RPID-MLHWJ) amended the ICDC into the Japanese clinical diagnostic criteria for AIP 2011 (JPS2011), which adhered closely to the basic concepts of the ICDC.^{5,6} The JPS2011 incorporated elements of both the previous Japanese criteria and type 1 AIP in the ICDC as much as possible and was designed to be simple for general physician use. The JPS2011 included: (1) diffuse/segmental/focal classification on pancreatic imaging; (2) IgG4 alone as a serological marker; (3) sclerosing cholangitis, sclerosing sialadenitis, and retroperitoneal fibrosis as

other organ involvement (OOI); (4) no classifications of level 1/2 in serum IgG4 or OOI; and (5) optional steroid trial only after excluding malignancy by EUS-FNA. Endoscopic retrograde pancreatography was basically required for focal/segmental type AIP, but not for the typical diffuse type. Magnetic resonance cholangiopancreatography (MRCP) was not an item in the JPS2011 due to inadequate resolution at the time.

Because the diagnostic use of ERP is limited in Japan and the quality of MRCP images has improved recently, JPS and RPID-MLHWJ have proposed revision of the JPS2011 mainly to establish a procedure that includes MRCP and negative findings of malignancy by EUS-FNA to complement the diagnostic ability of ERP. In 2018, a report entitled “Japanese Clinical Diagnostic Criteria for Autoimmune Pancreatitis, 2018: Revision of Japanese Clinical Diagnostic Criteria for Autoimmune Pancreatitis 2011” was published in *Suizo*, the official journal of the JPS.⁷ To better understand the Japanese clinical picture in AIP diagnosis, we herein introduce the English version of the JPS2018: Revision of the JPS2011 (Supplemental Table 1, <http://links.lww.com/MPA/A751>) in *Pancreas*, the official journal of JPS and American Pancreas Association, with the permission of the respective Editors-in-Chief of *Suizo* and *Pancreas*, Professors Sata and Go.

Because advancements in MRI, such as 3T units, have rendered the image quality of MRCP nearly equivalent to that of ERP, MRCP is now considered to complement ERP to some extent and has been included in diagnostic procedures. The diagnostic criteria of “II. Image findings showing irregular narrowing of the main pancreatic duct” have been divided into ERP and MRCP, and a statement on MRCP findings was added to the Explanations section as “Narrowing or invisibility of the main pancreatic duct is seen on MRCP and is extended to a certain degree, sometimes appearing as a multiple skip lesion. No significant dilation is observed above the narrowed area upstream of the main duct. It is usually difficult to evaluate side branches arising from narrowed portions of the main pancreatic duct. Although image quality of MRCP depends on the MR unit and scan parameters, it is necessary to acquire sufficient good quality images for the detailed evaluation of the pancreatic duct.” In addition, the item of “No neoplastic cells detected by EUS-FNA” was added to the section of “IV. Pathological finding” to indicate negative findings of malignancy by EUS-FNA as IVc. Regarding diagnostic ability, ERP was adjusted to be equivalent to the combination of MRCP and IVc (negative findings of malignancy by EUS-FNA) in the diagnostic procedure.

Many RPID-MLHWJ and JPS members have expressed difficulty in excluding malignancy by EUS-FNA. Even so, at the time of EUS-FNA, negative findings of malignancy combined with other results, such as elevated serum IgG4 and OOs, are able to identify the possibility of AIP. To clarify this, we have added the following statement to the section “IV. Pathological findings of the pancreas”: “Although EUS-FNA is a useful tool to exclude cancer, the absence of neoplastic cells alone is insufficient; it is also important to exclude cancer using the image findings shown in I-2). Moreover, the diagnostic process should be done carefully, with comprehensive evaluation of serological findings and other organ involvement.” Additionally, useful image findings to differentiate between AIP and pancreatic cancer were proposed by a radiological committee and incorporated into the section of “I. Enlarged pancreas” as “Abdominal CT-MRI: It is recommended to perform dynamic contrast-enhanced CT-MRI with bolus injection of contrast medium wherever possible. Useful findings for differentiation from pancreatic cancer are speckled/dotted enhancement and capsule-like rim at the parenchymal phase as well as delayed homogeneous enhancement. Capsule-like rim is seen as a band-like low-intensity area on T2-weighted images. Duct-penetrating sign is another characteristic finding of focal AIP and is rarely seen,” as well as “Even when characteristic findings for AIP can be found, careful diagnostic procedures should be conducted to exclude the possibility of pancreatic cancer if concurrent findings suggestive of cancer are present, such as upstream dilation of the main pancreatic duct, heterogeneous delayed enhancement, or severe stenosis of involved arteries.”

As kidney lesion was already included as an OOI in the ICDC, it seemed logical to add it to the OOI list of the JPS2011, which also contained sclerosing cholangitis, sclerosing dacryoadenitis/sialadenitis, and retroperitoneal fibrosis.

The JPS2018 revisions are expected to improve diagnostic accuracy for AIP and enable earlier disease identification and treatment.

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REFERENCES

- Shimosegawa T, Chari ST, Frulloni L, et al. International Consensus Diagnostic Criteria for Autoimmune Pancreatitis: guidelines of the International Association of Pancreatologists. *Pancreas*. 2011;40:352–358.
- Members of the Autoimmune Pancreatitis Diagnostic Criteria Committee of the Japan Pancreas Society. [Clinical diagnostic criteria of autoimmune pancreatitis 2002]. [Article in Japanese with English abstract]. *J Jpn Pancreas (Suizo)*. 2002;17:585–587.
- Okazaki K, Kawa S, Kamisawa T, et al. Clinical diagnostic criteria of autoimmune pancreatitis: revised proposal. *J Gastroenterol*. 2006;41:626–631.
- Otsuki M, Chung JB, Okazaki K, et al. Asian diagnostic criteria for autoimmune pancreatitis: consensus of the Japan-Korea Symposium on Autoimmune Pancreatitis. *J Gastroenterol*. 2008;43:403–408.
- The Japan Pancreas Society; The Ministry of Health and Welfare Investigation Research Team for Intractable Pancreatic Disease. [Clinical diagnostic criteria for autoimmune pancreatitis 2011 (proposal)]. [Article in Japanese with English abstract]. *J Jpn Pancreas (Suizo)*. 2012;27:17–25.
- Shimosegawa T; Working Group Members of the Japan Pancreas Society; Research Committee for Intractable Pancreatic Disease by the Ministry of Labor, Health and Welfare of Japan. The amendment of the clinical diagnostic criteria in Japan (JPS2011) in response to the proposal of the international consensus of diagnostic criteria (ICDC) for autoimmune pancreatitis. *Pancreas*. 2012;41:1341–1342.
- The Japan Pancreas Society; The Research Program on Intractable Diseases from the Ministry of Labor and Welfare of Japan. [Japanese clinical diagnostic criteria for autoimmune pancreatitis, 2018 (proposal)—revision of Japanese clinical diagnostic criteria for autoimmune pancreatitis, 2011]. [Article in Japanese with English abstract]. *J Jpn Pancreas (Suizo)*. 2018;33:902–913.

Exceptional Responses After Cessation of Therapy With Alkylating Agents for Pancreatic Neuroendocrine Tumors

To the Editor:

An increasing number of therapies are now available for the treatment of pancreatic neuroendocrine tumors (panNETs). Although panNETs are rare malignancies, more than half are metastatic at the time of diagnosis.¹ Studies in recent years have shown that alkylating agents are effective as first-line chemotherapy for patients with metastatic panNETs.² However, these agents are known to cause myelosuppression and prolonged treatment raises concerns about irreversible bone marrow suppression. To reduce these risks, our approach is to treat patients with alkylating agents for up to 12 months before a treatment holiday. Interestingly, we observed that 42 (72%) of 58 patients, who underwent a treatment break, had continued disease shrinkage or stability for a median of 19 months after drug cessation.

We conducted a retrospective review to identify and further characterize these