Journal of Gastrointestinal Surgery (2019) 23:1704–1705
https://doi.org/10.1007/s11605-018-4005-5

GI IMAGE

Sclerosing Angiomatoid Nodular Transformation of the Spleen (SANT) with IgG4 Plasma Cells Infiltration

Jun-Ke Wang[1] · Fei Su[2] · Fu-Yu Li[1]

Received: 28 September 2018 / Accepted: 5 October 2018 / Published online: 8 January 2019

Keywords SANT · Spleen · IgG4

A 53-year-old female patient was presented to our hospital because of an incidental finding of a splenic mass during health check. She denied any abdominal symptoms. Contrast-enhanced computed tomography revealed a 4-cm low-density lesion with heterogeneous enhancement in the spleen (Fig. 1). Routine laboratory tests including carbohydrate antigen 19-9 level and white blood count were within reference range. A laparoscopic splenectomy was performed for the patient. Postoperative course was uneventful. Microscopically, at low magnification, there are multiple angiomatoid nodules submerged in a fibrosclerotic stroma, (Fig. 2a). At high magnification, plasma cells significantly infiltrated in the fibrosclerotic area, some of which presented large, atypical, or binuclear cells (Fig. 2b). Immunohistochemical examination reveals positive staining for CD31 (Fig. 2c), CD34 (Fig. 2d), SMA (Fig. 2e), and IgG4 (Fig. 2f).

Sclerosing angiomatoid nodular transformation of the spleen (SANT) is an extremely rare benign lesion, characterized by dense stromal sclerosis.[1] The entity was first recognized in 2004.[2] The definitive diagnosis depends exclusively on histologic and immunohistochemical evaluation. Further studies are needed to elucidate the association between SANT and IgG4-related disease.

Acknowledgments This work was supported by Applied Basic Research Project of Sichuan Province (2018JY0019).

Author Contributions Jun-Ke Wang and Fei Su contributed to data acquisition and drafted the manuscript. Fu-Yu Li contributed to the study design and revised the manuscript. All authors read and approved the final manuscript.

Fig. 1 Contrast-enhanced computed tomography revealed a lesion with inhomogeneous enhancement in the spleen

Jun-Ke Wang and Fei Su contributed equally to this work.

✉ Fu-Yu Li
lfy_74@hotmail.com

[1] Department of Biliary Surgery, West China Hospital, Sichuan University, Chengdu 610041, China

[2] Department of Pathology, West China Hospital, Sichuan University, Chengdu 610041, China

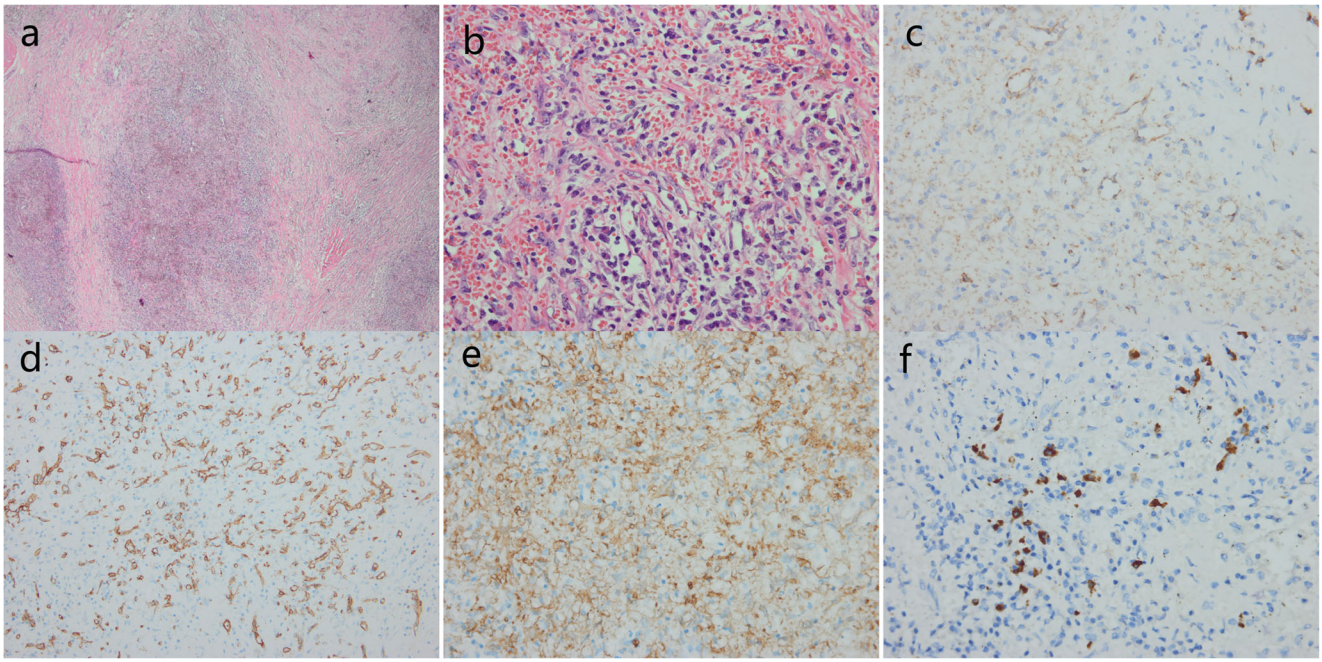

Fig. 2 **a** There are multiple angiomatoid nodules submerged in a fibrosclerotic stroma (× 40). **b** Plasma cells significantly infiltrated in the fibrosclerotic area, some of which presented large, atypical, or binuclear cells (× 400). **c** Immunohistochemistry showed that the tumor was positive for CD31(× 400). **d** Immunohistochemistry showed that the tumor was positive for CD34 (× 400). **e** Immunohistochemistry showed that the tumor was positive SMA (× 400). **f** Immunohistochemistry showed that the tumor was positive IgG4 (× 400)

Compliance with Ethical Standards

Conflict of Interest The authors declare that they have no conflict of interest.

Publisher's Note Springer Nature remains neutral with regard to jurisdictional claims in published maps and institutional affiliations.

References

1. Jin YW, Gao W, Li FY, Cheng NS. Is Sclerosing Angiomatoid Nodular Transformation an IgG4-associated Sclerosing Disease?. Applied immunohistochemistry & molecular morphology : AIMM. 2018.
2. Martel M, Cheuk W, Lombardi L, Lifschitz-Mercer B, Chan JK, Rosai J. Sclerosing angiomatoid nodular transformation (SANT): report of 25 cases of a distinctive benign splenic lesion. The American journal of surgical pathology. 2004;28(10):1268–79.