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Editorial Comment

Editorial Comment to A case of perirenal non-specific lymphadenitis mimicking a solitary renal mass

The preoperative diagnosis of small renal masses remains a challenge due to the complexity of differential diagnosis of malignant and benign diseases. To arrive at a definitive diagnosis of the rare condition of perirenal nonspecific lymphadenitis (PNSL),[1,2] it is necessary to exclude all the various benign diseases mimicking renal malignancy, such as tuberculosis, malacoplakia, and mycosis. Therefore, tumor specimens from biopsies or surgery should be appropriately prepared to investigate the clinical findings of all of these mimicking diseases. Whereas the only previous case[2] of PNSL underwent immediate tumor resection, Umeda et al.[1] demonstrated an excellent clinical approach as they regarded lymphoid malignancy as a preoperative differential diagnosis made by needle biopsy of the tumor. The detection of lymphatic tissue in preoperative needle biopsy specimens of the perirenal masses plays an important role in the planning of tumor resection surgery.

PNSL generally has a favorable prognosis[1,2]; radical nephrectomy should not be performed immediately even if the computed tomography reveals the tumor to be located in a difficult location. Primary renal lymphoma (PRL) has the poorest prognosis among the differential diagnosis of the lymphoid diseases. Therefore, minimally invasive lymph node resection needs to be planned in order to rule out lymphoma completely in cases where lymphatic tissue is detected in the preoperative needle biopsy of perirenal tumor. According to a recent study from the Surveillance, Epidemiology, and End Results (SEER) database,[3] the 5-year overall survival and cancer-specific survival rates of limited PRL (Stage I or II) are 61.6% and 72.9%, respectively. The efficacy of surgery such as radical nephrectomy has not been fully established, and systemic chemotherapy is the first choice for treatment. PNSL and PRL generally originate from the lymphatics surrounding the renal capsule.[1–3] Associated with these origins, they are described as an exophytic small renal mass or renal capsule tumor in enhanced computed tomography. 18F-FDG PET/CT can be used to differentiate between renal cell carcinoma and PRL, as the latter shows higher standardized uptake values (SUVs) than the former.[4]

During endoscopic surgery, the tumor is detected as budding on the renal capsule surface. Since PNSL does not involve invasion of the renal capsule, it can be easily dissected using an off-cramp procedure without injury to the renal parenchyma unless inflammatory adhesion is severe. Although PRL can invade the renal parenchyma, the surgeon need not convert a planned lymph node resection to a partial- or total nephrectomy intraoperatively, because systemic chemotherapies are administrated after malignant diagnosis. Histopathological investigation can rule out not only lymphoma, but also other benign lymphoid diseases that cannot be diagnosed preoperatively such as Castleman disease and inflammatory pseudotumor. Although histopathological

examinations in two cases of PNSL[1,2] presented multinucleate giant cells, which suggested viral or mycobacterial infection, the cause of this finding was unable to be identified. Further investigation of pathogens may be provided by polymerase chain reaction of frozen specimens of resected tissue that is prepared separately from formalin-fixed specimens.

Author contributions

M. Kubota conceptualized the study and drafted the manuscript; M. Kawakita involved in critical revision of the manuscript and study supervision.

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Conflict of interest

The authors declare no conflict of interest.

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