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LETTER TO THE EDITORS

Retractile mesenteritis in living kidney donors: difficult decision-making

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The evaluation for living kidney donation can bring up incidental findings of uncertain clinical relevance, which may impact on the decision to donate. Retractile mesenteritis is a rare disease with histologic inflammation of the mesenterium, fatty degeneration, necrosis, and fibrosis [1]. Patients may present with abdominal pain, intestinal obstruction, fever, abdominal mass or stool irregularities. Occasionally, it is an asymptomatic incidental radiological finding. Etiopathogenesis is unknown, a nonspecific response to diverse stimuli including smoking has been evoked [2]. In a retrospective analysis of 92 patients diagnosed with retractile mesenteritis, 41% had a history of abdominal surgery, 10% had associated rheumatologic conditions (Sjögren, ankylosing spondylitis, rheumatoid arthritis, and sarcoidosis), 18% had a neoplasia (lymphoma, ovarial tumor, prostate cancer, and sarcoma) [3]. A prospective analysis of 7620 consecutive abdominal CT-scans revealed mesenteric alterations in 49 patients (0.6%) [4]. The frequency and clinical course in an asymptomatic collective without underlying tumor is, however, unknown.

A 75-year-old woman was examined for living kidney donation. The CT of the abdomen showed retractile mesenteritis without a solid tumor (Fig. 1). There were neither intestinal nor constitutional symptoms nor evidence of auto-immune disorder. The wish to donate was strong with otherwise no contraindication. A retrospective study at our center found a CT prevalence of mesenteric alterations in 17.5% of patients with known non-Hodgkin lymphoma (NHL) [5]. Therefore, a diagnostic laparoscopy was performed to exclude an occult abdominal lymphoma, which would have been harmful to both donor and recipient. Histology samples (meso-jejunum, omentum) were normal. Three months later, kidney donation took place.

Three weeks later, the donor was admitted with jaundice and pancreatitis. An EBV-negative Burkitt-like lymphoblastic B-cell NHL was diagnosed with a duodenal tumor bulk. Bone marrow biopsy was normal. Flowcytometry of the blood was performed to evaluate the risk of tumor transmission to the recipient and was negative. The predonation CT showed no detectable tumor. Donor nephrectomy could have led to a temporary immune depression promoting the growth of an occult tumor. Alternatively, nephrectomy and tumor were just sequential events without relation. Partial remission was obtained after six cycles of Rituximab-cyclophosphamide-hydroxydaunorubicine-vincristine-prednisone. Unfortunately, the lymphoma relapsed at multiple locations. Further chemotherapy was refused by the donor and the issue was fatal. Twelve months after the transplantation, the kidney recipient had no clinical signs of lymphoma.

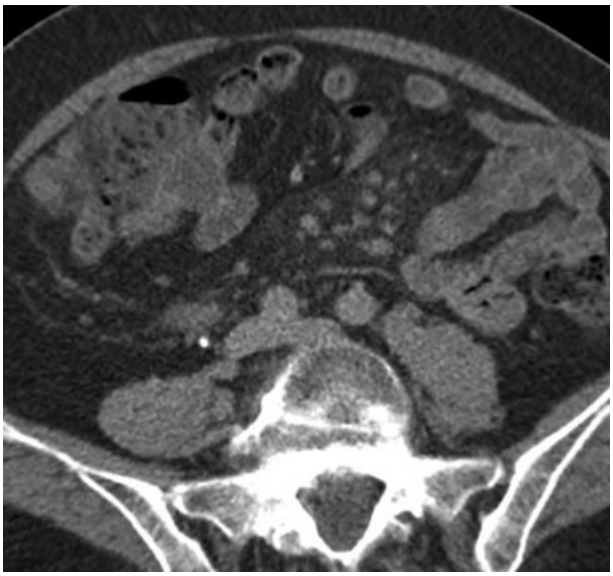

Figure 1 CT scan of the abdomen: Unenhanced CT scan of the abdomen shows a solitary well-circumscribed inhomogeneous fatty mass of the small bowel mesentery displaying higher attenuation than normal retroperitoneal fat (misty mesentery sign) and directed to the left of midline. Note the hyperattenuated stripe with a curved appearance partly surrounding the mass (tumoral pseudocapsule). There is also the presence of small, circumscribed soft tissue nodules scattered within the mass.

Forty abdominal CT and MRI scans were performed in kidney donors at our institution since 1992, mostly before donation. Only one CT scan performed 2 days after open nephrectomy showed mesenteric alterations, but this donor had no CT before donation. The mesenteric changes were possibly induced by the nephrectomy;

6 years later, the donor remains without tumor. Since 2009, radiological retractile mesenteritis was found in two further potential kidney donors, both asymptomatic without evidence of tumor or autoimmune disease. A repeat CT after 6 months showed in one case stable mesenteric alterations. With the experience of the previous fatal case, donation was refused. The second case showed after 6 months and again after 12 months, a reduction in the extent of the mesenteritis without sign or symptom of underlying disease. Donation was performed recently.

It appears that the radiological diagnosis of retractile mesenteritis is increasing, most probably because of better sensitivity of CT techniques and higher awareness among radiologists. The true incidence of this incidental finding and the relevance of the diagnosis for potential living organ donors remain unclear. To our knowledge, this is the first report of an asymptomatic retractile mesenteritis in a living kidney donor with a fatal follow-up. A prospective collection in a database for retractile mesenteritis in asymptomatic living donors may be helpful for clinical decision-making. Meanwhile, because of the association with malignancies, previous surgery or autoimmune disorders, this finding requires to take a careful medical history and to exclude an underlying disorder including laboratory workup (ANA, protein electrophoresis, LDH, sedimentation rate, soluble IL-2 receptor, PSA). If no disorder can be found and until more literature is available, it is probably advisable to wait at least 6 months and reevaluate the candidate before accepting donation.

Conflicts of interest

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