

Primary peritoneal carcinoma presented with abdominal pain in patient with kidney transplantation

Eunmi Jo¹ and Sang Heon Song^{1,2}

¹Department of Internal Medicine and Biomedical Research Institute, Pusan National University Hospital, Busan; ²Department of Internal Medicine, Pusan National University School of Medicine, Yangsan, Korea

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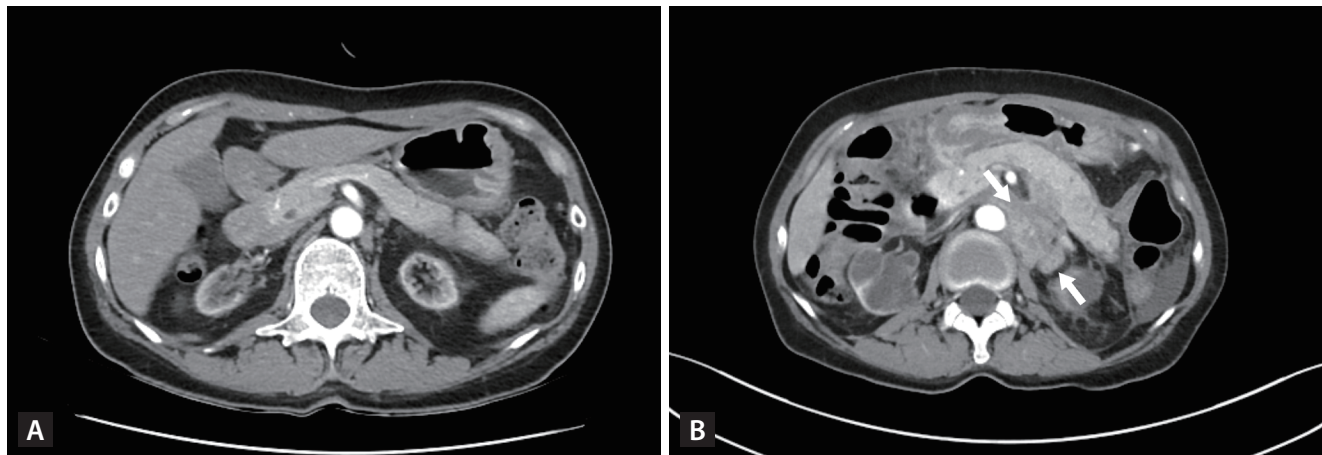


Figure 1. (A) The last normal computed tomography (CT) scan before diagnosis of primary peritoneal carcinoma. (B) CT scan at diagnosis; newly discovered enlarged retroperitoneal lymph node of about 5.5 cm.

A 54-year-old female chronic kidney disease on dialysis patient received a living donor kidney transplant from her son in August 2015. While maintaining triple drugs of tacrolimus, prednisolone, and mycophenolate mofetil, the patient was contracted COVID-19 infection in May 2022, seven years after transplant. She was prescribed antiviral agent and hospitalized for several days due to high tacrolimus concentrations.

Four months after COVID-19 infection, the patient presented with abdominal pain and computed tomography (CT) scan revealed a 5.5 cm lymph node enlargement (Fig. 1B) compared to last CT (Fig. 1A). Biopsy was performed and primary peritoneal carcinoma (PPC) was diagnosed. Chemotherapy was started and during four-cycle, all immunosuppressants were gradually discontinued due to repeat-

ed infections such as lung abscess, COVID-19 reinfection, and liver abscess. Four months after starting chemotherapy, dialysis has been resumed due to rejection, and chemotherapy has been suspended.

Kidney transplant recipients have increased cancer risk and the development of cancer has been attributed to immunosuppression and viral infections. Immunosuppression increase susceptibility of virus-associated disease and the risk of cancers associated with viral infection. In this case, it is unclear whether covid-19 infection could be contributed to cancer development.

PPC is very rare even in general population, with an incidence of 0.46 per 100,000 women, and to the best of our knowledge, this is first case in patient with kidney transplantation. It is aggressive cancer and main therapeutic options

are cytoreductive surgery and chemotherapy.

If a transplant recipient develops cancer and undergoes chemotherapy, the patient may have to wean off immunosuppressants due to infections and lose the transplanted kidney due to rejection. The deterioration of kidney function also makes it difficult to administer chemotherapy effectively. Considering this point, we should pay more attention to early detection of cancer after kidney transplantation.

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Correspondence to

Sang Heon Song, M.D., Ph.D.
 Department of Internal Medicine and Biomedical Research Institute,
 Pusan National University Hospital, 179 Gudeok-ro, Seo-gu, Busan
 49241, Korea
 Tel: +82-51-240-7875, Fax: +82-51-240-6856
 E-mail: shsong0209@gmail.com
<https://orcid.org/0000-0002-8218-6974>

Credit authorship contributions

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Conflicts of interest

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