

# Renal Metastasis from Squamous Cell Carcinoma of the Lung

Sir,

Historically, the kidney was considered to be an organ where tumors rarely metastasised. In 1948, Abrams *et al.* reported that the incidence of renal metastases was 12.6%, ranking 12<sup>th</sup> among organs, which indicated that the kidney was actually frequently involved with metastatic disease.<sup>1</sup> According to the report from the University of Texas, MD Anderson Cancer Centre, there were only 151 cases of renal metastasis from November 1985 to November 2013.<sup>2</sup> For distant metastases of lung squamous cell carcinoma (SCC), it most commonly involves liver, bone, brain and adrenal glands, but seldom the kidney. Srisung *et al.* reported a case of SCC of lung, causing enlarged kidneys in 2015. In that case, the patient's computed tomography (CT) scan of abdomen demonstrated bilateral enlarged kidneys with multiple poorly circumscribed hypodense foci throughout both kidneys.<sup>3</sup> In July 2017, we also encountered a case of an 88-year male patient, who developed solitary renal metastasis after undergoing a lower right pulmonary lobectomy and mediastinal lymphadenectomy for SCC of the lung (pT2bN0M0, stage IIA). In the present case, the lesion was found in the patient's left kidney. He had symptoms of hematuria after nine months of radical operation of the lung cancer. CT enhanced scan showed that the lesion was hypodense, without obvious enhancement, which had a clear boundary with pelvicalyceal system of kidney. CT reported infectious disease. Renal biopsy demonstrated poorly differentiated SCC which was positive for P40, CK7, CK, and CD10 on immunohistochemistry. Subsequently, laparoscopic radical left nephrectomy was performed. The patient refused postoperative adjuvant chemotherapy and was discharged from the hospital without any obvious symptoms. Unfortunately, he died of tumour progression in July 2019.

Standardised treatment protocols of solitary renal metastases remain unclear. Adamy *et al.* reported that over the last two decades, 13 patients underwent nephrectomy for solitary metastasis to the kidney, in which five primary cases were lung cancer. They suggested that nephrectomy can be an option for highly selected patients, which positively affected the survival rate of selected patients with solitary renal metastasis.<sup>4</sup> However, as for the recurrent disease in lung SCC, the treatment outcome and prognosis are not optimistic. Wang *et al.*

reported a case of solitary renal metastasis from SCC of lung, in which the patient died of cancer progression 10 months later due to lung cancer relapse.<sup>5</sup>

The present case suggests that solitary renal metastasis from a primary lung SCC is extremely rare, and the prognosis is poor even after surgery.

## CONFLICT OF INTEREST:

The authors declared no conflict of interest.

## AUTHORS' CONTRIBUTION:

JH: Conceived the idea and wrote first draft.

JP: Made addition to discussion.

SW: Reviewed and finalised the manuscript.

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