



## IMAGES IN THORAX

# Right subdiaphragmatic renal ectopia mimicking lung tumour

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### CASE PRESENTATION

A 76-year-old Japanese man was transported to our emergency room in summer with a coma and fever. His Glasgow coma scale score was E4V2M4, and his body temperature was 37.8°C. As part of a clinical workup, a pulmonary examination was performed, which revealed reduced breath sounds in the right basal hemithorax. Chest radiography revealed a round lesion on the right inferior lobe (figure 1). Lung tumour or abscess was suspected, but blood examination revealed renal dysfunction; thus, CT, not contrast-enhanced CT, was performed (figure 2). CT revealed right subdiaphragmatic renal ectopia without ureter abnormality and urinary tract infection. The patient's body temperature decreased following the administration of cold intravenous fluid and exposure to water mist and fanning, and subsequently, he became alert. We diagnosed the case as a heat stroke and incidentally identified ectopic kidney, because the symptoms improved immediately after cooling and no inflammatory reaction was noted in the blood test.

### DISCUSSION

Ectopic kidney is most frequently observed in deep sites, such as the pelvic, lumbar or iliac regions, and is rarely observed in high sites, such as the intrathoracic or subdiaphragmatic regions. Ectopic kidney is observed in 1–5 per 1000 individuals, but high



**Figure 2** The right kidney was located posteriorly and superiorly to the liver, below the diaphragm.

renal ectopia is a rare condition (1 in 22 cases of ectopic kidneys). In addition, it most frequently occurs in infants due to a congenital anomaly.<sup>1</sup> High renal ectopia occurs four times more frequently in men and on the left side twice as often as it does on the right side. Most cases are asymptomatic, like this case, but it can present with ipsilateral hypochondrial pain and can be accompanied by vesicoureteral reflux.<sup>2</sup> Thus, most cases are identified incidentally when imaging is performed for other reasons.<sup>3</sup>

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**Figure 1** Chest X-ray image showed a right lower lobe mass.



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