

Intrathoracic kidney: an unusual cause of shortness of breath

Stephanie Farrugia¹

Jonathan Gauci²

Kyra Bartolo²

Josef Micallef²

Author details can be found
at the end of this article

Correspondence to:
Stephanie Farrugia;
stephanie.f.farrugia@gov.mt

A 58-year-old man with a 40 pack-year smoking history and no previous respiratory issues presented to the respiratory clinic with a 1-year history of modified Medical Research Council dyspnoea grade 1. Spirometry showed moderate restriction with a forced vital capacity of 2.65 litres (60%) and forced expiratory volume in 1 second/forced vital capacity ratio of 83%. Chest X-ray revealed increased opacification in the left lower lung zone (**Figure 1**).

Computed tomography scan revealed a left diaphragmatic hernia and a rotated left kidney displaced superior to the spleen and inside the thorax (**Figure 2**). This was causing volume loss with secondary atelectasis in the left lung. Apart from two simple cysts, the left kidney had normal anatomical features without vascular compromise, and renal function was normal. Corrective surgery was offered, but the patient declined since his symptoms were not affecting his quality of life.

Intrathoracic kidneys account for less than 5% of all cases of renal ectopia (Chong and Chao, 2012) and occur more commonly on the left (Gupta et al, 2013). They may be associated with congenital diaphragmatic defects (Chong and Chao, 2012).

Author details

¹Department of General Medicine, Mater Dei Hospital, Msida, Malta

²Department of Respiratory Medicine, Mater Dei Hospital, Msida, Malta

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Figure 1. Plain chest X-ray showing left lower lung zone atelectasis.

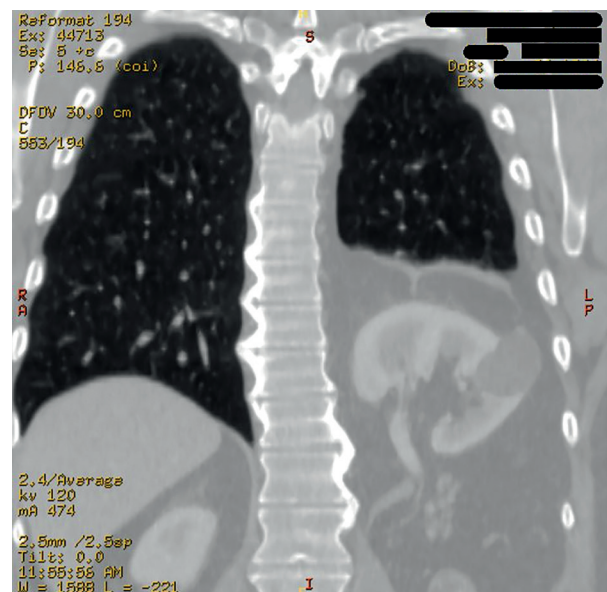


Figure 2. Coronal computed tomography scan of the thorax showing a left diaphragmatic hernia containing left kidney with loss of volume of the left lung and secondary compressive atelectasis. A simple cyst is visible in the lower pole of the left kidney, measuring 30mm in diameter.