Images in Medicine

Aortic, hepatic and renal artery aneurysms in autosomal dominant polycystic kidney disease

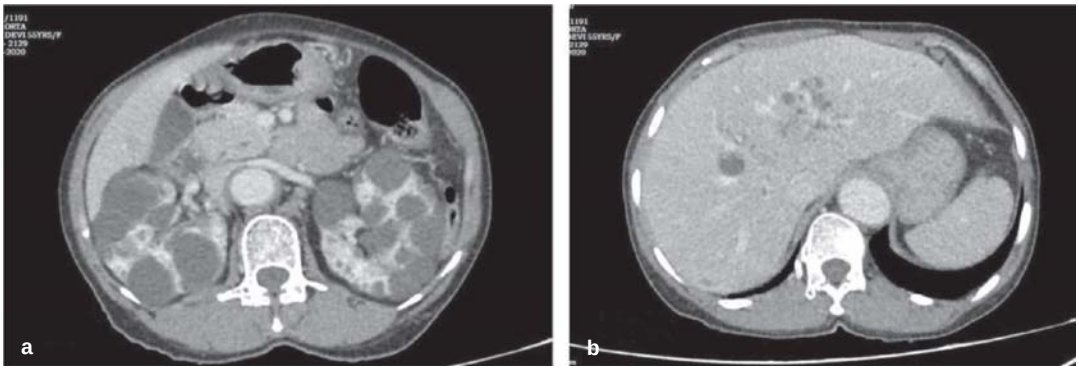

FIG 1. Axial portal phase computed tomography images showing (a) multiple variable-sized cysts in both kidneys, and (b) a few simple cysts in the liver

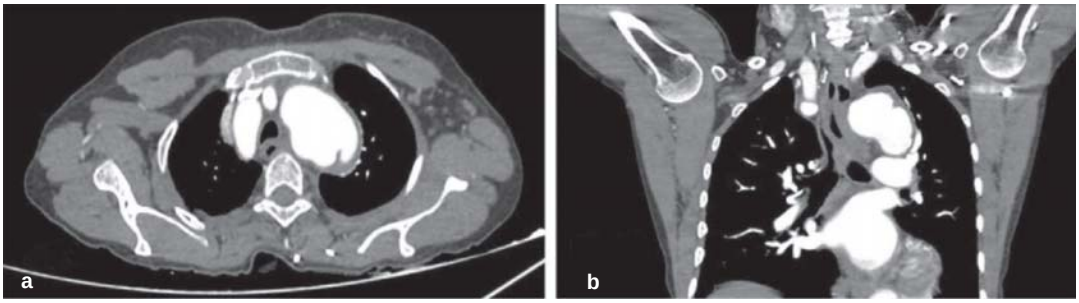

FIG 2. Axial (a) and coronal (b) computed tomography images of the thorax at the level of arch of aorta showing a small aneurysm of the aortic arch

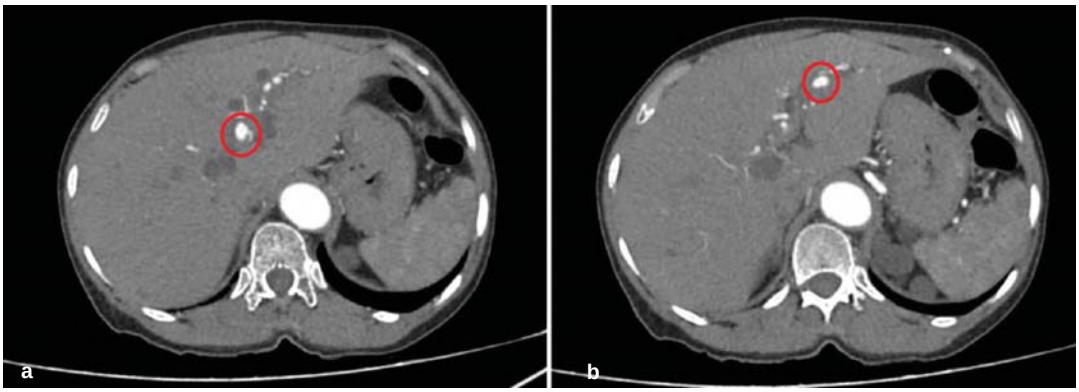

FIG 3. Axial computed tomography images showing two small aneurysms of the branches of hepatic artery (red circles in a and b)

A 55-year-old woman, known case of autosomal dominant polycystic kidney disease (ADPKD), presented with generalized weakness, episodic haematuria and occasional dyspnoea for a few days. On echocardiography, aneurysm of the arch of aorta was suspected. She had a CT angiography of the thorax and abdomen vessels, which showed features of ADPKD with bilateral enlarged kidneys and multiple cysts in the kidney and liver parenchyma (Fig. 1). CT angiography showed aneurysm of the arch of aorta (measuring 3.3 cm) (Fig. 2) and two small aneurysms in the left hepatic artery (measuring 9×9 mm and 7×7 mm) and a small aneurysm in the intrarenal branch of the left renal artery (Figs 3 and 4). The right renal artery was seen to originate at the level of the superior mesenteric artery (Fig. 5).

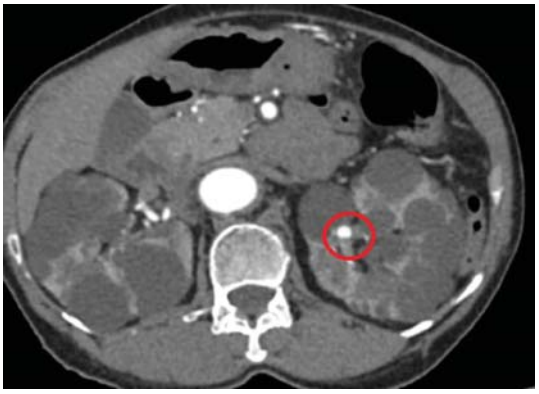

FIG 4. Axial computed tomography image showing an aneurysm of the intrarenal segment of left renal artery (red circle); the left renal artery originated at its normal position

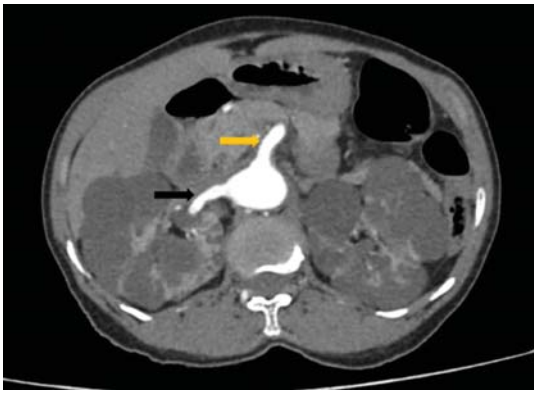

FIG 5. Axial computed tomography image showing right renal artery (black arrow) arising at the same level as the superior mesenteric artery (yellow arrow); the right renal artery is otherwise normal

ADPKD is a major cause for end-stage renal disease and the presenting complaints are vague abdominal discomfort, haematuria, hypertension and urinary tract infection.[1] Radiologically, numerous cysts are seen in the kidneys, liver, pancreas, spleen and seminal vesicle. Extra-renal manifestations of the disease include central nervous cysts, cardiac complications (mitral valve prolapse), diverticular disease, decreased fertility in men and aneurysmal malformation of the blood vessels.[2,3] Intracranial aneurysms occur in about 6% to 20% of ADPKD patients and have a higher risk of subarachnoid haemorrhage. Aneurysms are also seen in the aorta, popliteal, splenic and coronary arteries.[3] We have not been able to find published data regarding hepatic and renal artery aneurysms in ADPKD patients.

Conflict of interest. None declared

REFERENCES

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