

Acute coronary syndrome and coexisting resistant hypertension: should renal angiography be routinely performed?

Ostry zespół wieńcowy i współistniejące odporne nadciśnienie: czy arteriografia tętnic nerkowych powinna być rutynowo wykonana?

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Renal artery stenosis (RAS) is the most common cause of secondary hypertension, and accounts for about 1–10% of people who have hypertension. The clinical clues that suggest the diagnosis of RAS include the onset of hypertension after 50 years of age, hypertension associated with renal dysfunction, flush pulmonary oedema, and drug resistance. Renal arteriography may be considered in patients with a high suspicion of RAS referred for diagnostic coronary angiography. However, on rare occasions, other less common causes of secondary hypertension can be found. A 49-year-old woman was admitted to our department because of recurrent spontaneous chest pain. The symptoms were typical, and exertional angina had been present for 1 year. Concomitant diseases included: diabetes, hyperlipidaemia and hypertension diagnosed 2 years before. She also complained of constipation, lack of appetite and weight loss (5 kg during the last 2 months). On admission, sinus tachycardia 110/min, high blood pressure 230/120 mm Hg, and mild discomfort during abdomen palpation were present. Electrocardiogram showed horizontal ST segment depressions –1.0 mm in II, III, aVF, V₅–V₆ leads and negative T waves in V₂–V₆ leads. Echocardiography revealed good left ventricle function. Troponin was negative. Coronary angiography revealed normal-looking coronary arteries. Selective renal arteriography was performed. There was a non-significant lesion in the proximal part of the left renal artery (RA) and a normal right RA without any stenosis (Figs. 1, 2). However, in late phase of contrast injection, a pathological mass supplied by the right RA at the level of the L1 vertebra was seen (Fig. 3). Computed tomography confirmed the presence of a suprarenal gland tumour 6.5 × 4.5 cm with mixed density and liquid spaces (Fig. 4). The levels of catecholamines were significantly elevated, so a final diagnosis of pheochromocytoma was confirmed. Pheochromocytoma is a rare cause of hypertension (0.1%). Symptoms of pheochromocytoma can sometimes mimic acute coronary syndrome as a result of high catecholamines levels. Renal arteriography performed during coronary arteriography is a quick and simple procedure that can confirm or exclude RAS. However, late phase of contrast arteriography should be always recorded so as not to overlook any other, rare, pathological finding.



Figure 1. Mild stenosis of left renal artery (arrow)



Figure 2. Right renal artery stenosis excluded



Figure 3. Pathological mass supplied by right renal artery seen in late phase (arrows)

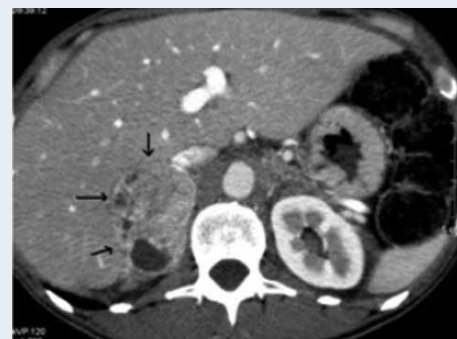


Figure 4. Suprarenal gland tumour with mixed density and liquid spaces (arrows)

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