中文題目：腹主動脈栓塞合併續發性高血壓及高血壓腦病變

英文題目：Thrombosis of abdominal aorta complicated with secondary hypertension with hypertensive encephalopathy

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Background

Patients with significantly elevated blood pressure (SBP ≥180 and/or DBP ≥120 mmHg) may have signs or symptoms of target-organ damage, which is called hypertensive emergency. In this situation, a secondary cause of hypertension must be sought.

The prevalence of renovascular hypertension could be as high as 10 to 40 percent in patients with acute, severe, or refractory hypertension. Here we presented a patient who had thrombosis of infra-renal aorta, with renal artery involvement, presented as hypertensive encephalopathy, in the absence of hypertension, stroke or acute coronary syndrome (ACS) history.

Case presentation

A 71-year-old male presented to our emergency room due to dizziness with progressive bilateral lower limbs weakness in recent two weeks. In addition, lower limb claudication after walking for thirty minutes had been noted for five years. He had history of depression disorder and diabetes mellitus (HbA1C: 6.8%) without medication therapy for years. He had smoked cigarette one pack-per-day for forty years, and have been already quitted for five years.

At ER, his physical examination showed blood pressure was 226/123mmHg, and decreased pulses of bilateral dorsalis pedis artery. Neurological examination showed intact CNS function and muscle power. Arranged Brain CT revealed no obvious brain lesion. Hypertensive encephalopathy was considered at that time. However, laboratory data later disclosed impaired renal function (Cr: 1.8), hypokalemia (K: 2.8), and metabolic alkalosis (U-Cl: 91, pH: 7.457, HCO3: 30, PCO2: 47.9), so we further checked up aldosterone (662.2 pg/ml), and renin (>57.00 ng/ml/Hr) level, which secondary hyperaldosteronism was highly suspected. The abdomen ultrasounds showed bilateral chronic kidney disease, with the right side kidney much smaller (8cm) than left side (10cm). The followed abdomen CT disclosed almost total thrombosis of infra-renal aorta with right renal artery involvement, which caused segmental infarction of the right kidney. Artery bypass was indicated due to severe peripheral artery occlusion disease with ankle-brachial index: 0.3. His blood pressure was conservatively well controlled after surgery.

Conclusion

This patient presented with hypertensive encephalopathy, and renal origin was later discovered. There are two major causes of unilateral renal artery stenosis, inclusive of atherosclerosis and fibromuscular dysplasia. The former primarily affects patients over the age of 45 years and usually involves the aortic orifice or the proximal main renal artery, which was compatible with our patient. However, more survey for secondary cause of thromboembolism should be done in the future.