

Renal artery stenosis: Diagnosis and treatment strategies

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摘要

Abstract

SUMMARY Sixty seven hypertensive children age 2-18 with at least one possible clinical sign of renovascular hypertension (RVH) were enrollment into a screening program for diagnose and treatment of RVH over a 19 year period. Patients underwent a variety of biochemical and imaging studies, but in all cases, renal arteriography was used to determine the precise diagnosis and treatment strategy. Of the 67 patients 21 (31.3%) were identified with renal artery stenosis Group 1, 14 (66.6%) unilateral, 5 (23.8%) bilateral and 2 (9.6%) branches. The mean age was 13.9 +/- 3.73 years, with 26.4 +/- 35.2 months of known hypertension, mean systolic blood pressure 191.1 +/- 30.6 mmHg, mean diastolic blood pressure 135.3 +/- 21.2 mmHg and 69% due to fibromuscular dysplasia. Three therapeutic modalities were chosen: percutaneous transluminal angioplasty (PTA), surgery (autotransplant, and nephrectomy), pharmaceutical therapy with antihypertensive drugs and combination of these. The aim of the treatment was blood pressure control, prevention of chronic renal disease and renal function and organ damage preservation. The outcome was categorized as cure, improvement or no change in hypertension. PTA treated eleven patients, 2 combined with surgery (one nephrectomy and 1 autotransplant). Blood pressure was normalized in 9/11 (81.8%) after a mean follow-up of 11.5 years (range 1-18 years). All 6 RVH cases treated by surgery procedure (one after PTA) were cured and 4 cases were managed medically (pharmacological treatment). On december 2004, 19/21 (90%) RVH adolescents blood pressure was normalized with normal serum creatinina, 10 (48%) of these completed cured, 9/21 (43%) improved (normotensi 贊 n with decrease in medication requirements) and 2 (9%) other cases ware lost of follow-up. The 46 non-RVH adolescents (68.7%) were treated with long term antihypertensive medications; all of these have adequate BP control and normal renal function. We conclude that our work-up used in order to make a proper and timely diagnosis and treatment of renovascular hypertension in adolescent was successful in our population