Coarctation Long-term Follow-up and Quality of Life: 
Predictive Value of Clinical Variables

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Objective: Long-term sequelae and events after coarctation repair are well described. However, the predictive value of variables from clinical follow-up investigation for late events has rarely investigated. 

Methods: All patients, who have participated in the prospective cross-sectional COALA Study in 2000 with a structural clinical investigation including blood pressure measurement and symptom-limited exercise test were contacted for reevaluation of current clinical status, medical treatment, major cardiovascular events, office and ambulatory blood pressure measurement and the health-related quality of life questionnaire SF-36.

Results: From 273 eligible patients, we received data from 151 patients. Fifty -seven patients denied participating in the study. Nine patients died during the follow-up time with the age of 46 years (range 30-64 years), 25 patients had a cardiovascular event (12 procedures at the aortic valve or aortic arch, 8 procedures for recoarctation, 2 endocarditis, 2 cerebrovascular insults, one aortic dissection). Thirty-five patients (30%) showed normal ambulant blood pressure, 56 (48%) were on antihypertensive medication and 25 (22%) had arterial hypertension without receiving medication. Quality of life was good in the fields of physical role and pain. However, patients reported a significant impairment in general health, depending on the age. Arterial hypertension, echocardiographic measurements or exercise capacity from the COALA study were not predictive on functional health status.

Conclusion: Repaired coarctation of the aorta shows fairly low mortality on long-term follow-up. Important events are not only recoarctation, but also procedures at the bicuspid aortic valve. The rate of arterial hypertension is progressively increasing. However, the predictive value of clinical variables is limited, except the presence of a bicuspid aortic valve and the presence of aortic aneurysm for aortic valve procedures.