Delayed Diagnosis of Aortic Coarctation
The Third Medical Visit

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A black male native of Côte d’Ivoire (West Africa) met a doctor for the first time at age 3 because of an inability to walk. A traditional African medical practitioner left the parents with little hope. Nevertheless, the patient was finally able to walk but continued to suffer an inability to run.

His second meeting with a doctor was at age 30 in the intensive care unit of Abidjan Hospital, Côte d’Ivoire, because of a stroke, with left hemiplegia and coma, associated with high blood pressure. He was discharged from the hospital 15 days later on an antihypertensive drug. The neurological recovery was complete 1 year later.

During a checkup after 16 years of no medical examinations, French immigration physicians found high blood pressure and heart murmur, leading to the transfer of the patient to our Cardiovascular Department. This was his third medical visit.

Because of high blood pressure, asymmetry of blood pressure between the 2 arms, systolic heart murmur, increased carotid pulses, and decreased femoral pulses, aortic coarctation was suspected. MRI angiography (Figure 1) and spiral CT (Figure 2) confirmed the diagnosis. A left subclavian artery aneurysm was also found, which explained the initial chest radiographic image (Figure 3). Additional supra-aortic vascular abnormalities were found, along with a collector trunk replacing the innominate artery and common left carotid artery (Figure 2).

Reconstructive surgery was very difficult because of tremendous collateral circulation (Figure 1). The coarctation was resected with the adjacent aneurysmal emergence of the left subclavian artery (Figure 4). A tubular prosthesis was implanted, with the proximal anastomosis performed at the takeoff of the collector trunk and the distal anastomosis performed to the descending aorta. The left subclavian artery was not reimplanted because its residual pressure was equal to the systemic blood pressure. Postoperative spiral CT images were satisfactory (Figure 5).

At a follow-up visit at 8 months, blood pressure was 110/70 mm Hg in both arms without use of any antihypertensive drugs.

Acknowledgments
The authors wish to thank Prof Gaux and Dr Maisseaux of the Radiology department, Broussais Hospital.


Figure 2. Spiral CT with 3D reconstruction. A, Aortic arch hypoplasia ending with coarctation of aorta at posterior side of arch. B, Important left subclavian artery aneurysm measuring 66 mm in diameter. C, Collector trunk replaces innominate artery and common left carotid artery. D, Right common carotid artery. E, Left common carotid artery.
Figure 3. Chest radiograph showing enlarged and calcified mass shadow in left superior mediastinum (arrow).

Figure 4. Perioperative view of left subclavian artery aneurysm (arrow).

Figure 5. Postoperative spiral CT with 3D reconstruction: slight dilation of posterior side of aortic arch (arrow).
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Circulation. 1999;100:e51-e52
doi: 10.1161/01.CIR.100.11.e51
Circulation is published by the American Heart Association, 7272 Greenville Avenue, Dallas, TX 75231
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Print ISSN: 0009-7322. Online ISSN: 1524-4539

The online version of this article, along with updated information and services, is located on the World Wide Web at:
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