JAMES L. BECK, M.D.*
Lexington, Kentucky

This 48-year-old white coal miner has been referred to the hospital with a provisional diagnosis of aneurysm of the aorta. There is a six-month history of vague substernal distress, noticed only while working, which has become progressively more severe during the past two months. A mining accident five years ago resulted in several rib fractures. Physical examination and laboratory studies are within normal limits. The blood pressure is 120/80 and the peripheral pulses are normal.

*From the Department of Radiology, University of Kentucky Medical Center.
There may be associated dilatation of the ascending and descending portions of the thoracic aorta. The aorta proximal to the ligamentum arteriosum is usually elongated and the left subclavian artery may be dilated. Hemodynamic studies and angiocardiography fail to demonstrate luminal stenosis or collateral circulation. Dilatation and elongation of the aorta and absence of stenosis have been demonstrated at postmortem examination. Associated congenital aortic valve stenosis and aneurysm of a sinus of Valsalva have been seen with some frequency. The defect has been observed in patients as young as ten years of age and several cases have been reported under the age of 30 years. Congenital origin is suggested by the age distribution, associated cardiac anomalies, and aortic dilatation in the absence of obstruction to flow.

Although the roentgenogram findings in pseudocoarctation may be simulated by a superior mediastinal tumor or aneurysm of the arch of the aorta, they are most closely mimicked by coarctation of the aorta. Absence of both rib notching and differential hypertension in the arms and legs exclude coarctation. Radiologic recognition of this anomaly is important since it may prevent needless surgery.

References


For reprints, please write Dr. Beck, Department of Radiology, University Hospital, Louisiana.