A 20-year-old asymptomatic woman was admitted to the hospital for workup of a continuous heart murmur. Five years previously, she had had a normal chest roentgenogram (Fig 1) before needle drainage of bilateral axillary abscess. On physical examination she had a continuous, machinery-like murmur heard predominantly on the second right intercostal space accompanied by a suprasternal systolic thrill. The distribution of the murmur was wide over both supraclavicular areas, as well as both pectoral regions, louder in the right side. The blood pressure was equal on both upper extremities. Her current chest x-ray film is shown on Figure 2.

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Diagnosis: Bilateral arteriovenous fistula between subclavian arteries and its chest wall branches to predominant pulmonary veins with some flow into pulmonary arteries.

Her admission chest film (Fig 2) revealed bilateral apical pleural capping and increased apical parenchymal interstitial markings.

The aortogram (Fig 3) showed the presence of numerous arteriovenous fistula connecting both subclavian arteries and the upper branches of both pulmonary veins and arteries. Radionuclear studies confirmed a left-to-right shunt and indicated that both upper lobes of the lungs were perfused systematically from the subclavian arteries.

We believe that the probable etiology of this unusual case is trauma secondary to needle drainage of bilateral axillary abscesses with inflammatory reaction of the pleura producing bilateral apical systemic hypervascularization. The normal chest film before needle drainage lends support to our proposed mechanism.

Arteriovenous fistulae producing a continuous murmur similar to our case has been described with internal mammary artery to pulmonary artery communications. Our case is unusual because the fistulae were bilateral and involved the upper lobes.

REFERENCES
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