ly out of the neck-and-sternal incision and the patient died within minutes. Autopsy disclosed an aneurysmal dilatation of the ascending aorta, with a 2 cm transverse irregular tear on its posterior aspect, 4 cm from the aortic valve. In the intima, the tear extended to 6 cm length (Fig 1). Microscopic examination of the aortic arch showed focal destruction of the elastic fibers in the media with scarring and increased vascularity, focal lymphocytic infiltrations in the adventitia and media, and thickening of the intima in some adventitial arterioles. The findings were typical for luetic aortitis.

**DISCUSSION**

Aneurysm of the ascending aorta is an absolute contraindication to mediastinoscopy. Unfortunately, in this patient the aneurysm was not suspected. Nothing in his past history suggested syphilis. The clinical and radiologic evidence, including widened mediastinum, wide carina and sputum cytology, provided overwhelming evidence favoring the diagnosis of bronchogenic cancer and an indication for mediastinoscopy. The complication was thus unavoidable.

Extreme care in performing mediastinoscopy is urged.\(^1\)\(^-\)\(^3\) To minimize complications, the possibility of mediastinal vascular abnormalities must be kept in mind. Serology test for syphilis is mandatory in every patient whose mediastinum appears widened on chest roentgenograms.

**REFERENCES**


**Pulmonary Arterial Laceration Secondary to Subclavian Vein Catheterization**

**To the Editor:**

We wish to report a patient in which attempted infraclavicular subclavian puncture resulted in distal pulmonary arterial bleeding resulting in massive hemothorax requiring thoracotomy for repair.

**CASE REPORT**

A 69-year-old woman was transferred to Henry Ford Hospital because of fever of unknown origin. Though initially stable, disorientation and hypotension developed 12 hours after admission. Attempts at infraclavicular subclavian vein catheterization were unsuccessful, and a right internal jugular line was then inserted. Fluids were administered and the blood pressure stabilized.

Fifteen minutes later, the patient developed left chest pain and shortness of breath. A chest x-ray film (Fig 1) revealed a large hydrothorax and possible pneumothorax. A chest tube was inserted and drained 4 liters of dark blood in less than one hour. An emergency thoracotomy was performed, and the subclavian vessels were found intact. The apex of the left lung was lacerated and brisk arterial bleeding was identified at this site. Hemostasis was easily achieved.

**REFERENCES**


**FIGURE 1.** Chest x-ray film demonstrates large left hydrothorax and associated pneumothorax.

Postoperatively, the vital signs were stable and the chest tube drainage minimal. Twelve hours later, hypotension again developed with evidence of sepsis. Despite vigorous efforts, the patient continued to deteriorate and could not be resuscitated following cardiac arrest.

**DISCUSSION**

Hemothorax and hydrothorax are among the common major complications of subclavian venous puncture. These may result from either a lacerated subclavian vessel or from the direct infusion of fluid through a catheter that has migrated extraluminally or was never secured within the vein. The delayed development of a hydrothorax, though rare, may result from the gradual breakdown of the vein wall by the catheter.\(^1\)

Only one other case of hemothorax associated with pulmonary arterial bleeding has been described.\(^2\) The previous case differs in that the supraventricular approach had been employed, and complicating apical pleural adhesions, pulmonary hypertension, and prior anticoagulation were identified as predisposing factors. Only minimal pulmonary hypertension could be identified in the present patient. Because no puncture marks were seen on the subclavian vessels, it must be surmised that the needle had been inserted quite inferiorly and posteriorly. Subclavian vein catheterization remains a useful procedure, but serious complications can occur without proper attention to anatomic and technical details.

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