

(Custodial, Kohler Chemie GMBH, FRG), which does not contain penicillin (table 1). Mannitol, one of the other components, has been described to induce anaphylactoid reactions.^{2,3}

To confirm the allergic origin of the wheezing, blood samples were drawn two and twelve h after the occurrence of bronchospasm, and showed increased plasma histamine, normal immunoglobulin E (IgE), and slightly depressed complement 3 and normal complement 4 level, supporting an anaphylactoid reaction was the cause of the adverse reaction.⁴

Because of the preoperatively administered corticosteroid and immunosuppressive treatment, fortunately this was not a life-threatening reaction. Our case emphasizes the fact that in the immunocompromized patient, an allergic reaction can manifest as bronchospasm possibly caused by the solution used to perfuse the harvested organs.

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Delayed Onset of Pneumothorax Following Internal Jugular Vein Cannulation

To the Editor:—Pneumothorax following placement of central venous catheters occurs in approximately 1–3% of attempts at access. Previous reports of this complication note intrapleural air immediately, or soon after, placement of the catheter.^{1,2} We report a case of 100% pneumothorax occurring immediately following removal of an internal jugular vein catheter that had been inserted 8 days earlier.

A 53-yr-old woman presented for posterior fossa craniotomy in the sitting position to excise both a right-sided cerebellar meningioma and a left-sided acoustic neuroma. After induction of general endotracheal anesthesia, an 8.5-French sheath (Arrow-Flex Radiopaque, Arrow International) was placed in the right internal jugular vein with ease. A multiorificed single-lumen catheter was inserted through the diaphragm of the sheath. The internal catheter was removed in the recovery room. Radiography of the chest in the recovery room and on postoperative days 1, 2, and 5 revealed no abnormalities. On the 8th postoperative day, a nurse removed the sheath, and within 1 min the patient developed profound dyspnea and tachypnea. Venous air embolism was suspected, but physical examination revealed absence of breath sounds over the right lung field. A radiograph of the chest showed a 100% right-sided pneumothorax. Tube thoracostomy was performed, and intercostal nerve block provided the patient with relief of pain from her chest tube.

To our knowledge this is the first report of a pneumothorax following removal of a central venous catheter. We theorize that the pleura, and possibly the lung parenchyma, was damaged during sheath insertion. This defect was temporarily sealed by the sheath. At the time of removal, the defect opened, resulting in pneumothorax. This represents

a case of uncommon timing of a fairly common complication, and highlights the necessity of observing the patient after removal of intravascular catheters used for monitoring.

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