Communications for this section will be published as space and priorities permit. The comments should not exceed 350 words in length, with a maximum of five references; one figure or table can be printed. Exceptions may occur under particular circumstances. Contributions may include comments on articles published in this periodical, or they may be reports of unique educational character. Specific permission to publish should be cited in a covering letter or appended as a postscript.

Triple-lumen Central Venous Access via the External Jugular Vein

To the Editor:

An essential part of modern critical care medicine is the need for central venous access to monitor central venous pressure and administer various inotropic drugs. However, cannulation of the internal jugular or subclavian vein is technically demanding and may result in arterial puncture or pneumothorax. Since 1987, the New York State Health Department has required that complications of central intravenous access procedures, particularly pneumothorax, be reported for review and possible disciplinary action.

We have avoided these complications by using the external jugular vein for insertion of triple-lumen catheters. This technique is a modification of that described for central passage of single-lumen catheters via the external jugular vein using a flexible, J-shaped guide wire.1

With informed consent, the patient is placed in the Trendelenberg position, with the head turned away from the side of the external jugular vein to be used. Venipuncture is performed under sterile conditions with local anesthesia, using an 18 gauge needle and a 16 gauge, 6.4 cm over-the-needle catheter. The catheter is advanced a few cm into the vein and the needle removed. A syringe is attached to the catheter and aspirated to confirm good blood flow.

Next, the flexible, J-tipped guide wire is threaded down the catheter, past the venous valves and beyond the junction of the external jugular and subclavian veins. The catheter is then removed and after dilation of the venipuncture site, a 7 French triple-lumen catheter is passed over the guide wire into the central vein. After securing good back flow of blood, the guide wire is removed and the catheter is sutured in place (Fig 1).

We have achieved central access on ten of 12 attempts using this approach, with no complications of arterial puncture or pneumothorax. On one occasion it was not possible to cannulate the external jugular vein, and on another the guide wire would not navigate the junction of the external and subclavian veins, possibly due to a venous plexus at this site. However, on the majority of attempts the guide wire passed easily from either side, enabling central venous pressure monitoring and administration of essential medications for hemodynamic support. The simplicity and safety of this method of central venous access may prove popular, particularly in critical care units in New York State.

Wayne J. Manishen, M.D., and Linda Brawoski, M.D., Department of Internal Medicine, State University of New York, Buffalo

Reprint requests: Dr. Manishen, 26 Slate Creek Dr. Apt. 5, Cheektowaga, NY 14227

Figure 1. Left, chest x-ray film showing insertion of triple-lumen catheter via left external jugular vein, with tubing across chest. Right, catheter inserted via right external jugular vein.
REFERENCES


Pneumocephalus in Association with Lumbar Punctures

To the Editor:

The article by Jarjour and Wilson (Chest 1989; 96:1425-26) on pneumocephalus associated with nasal continuous positive pressure ventilation in a patient with sleep apnea syndrome was of particular interest to us. Recently, we noted the development of pneumocephalus in a patient admitted to the pulmonary/ICU service who had undergone multiple lumbar puncture attempts. A literature search revealed no report of pneumocephalus in association with lumbar punctures.

A 48-year-old actor was admitted to the hospital with penile trauma, lethargy and altered mentation. His medical history was significant for Gilles de la Tourette syndrome and a spinal injury sustained during childhood. His medications included haloperidol and pimozide. On presentation, he was alert with occasional lapses into incomprehensible, pressured speech. Physical examination was significant for gross blood from urethra and abrasion of the right scrotum. There was mild nuchal rigidity but other meningeal signs were absent. There was no external evidence of head trauma. Complete blood counts, blood biochemical studies and thyroid function test results were normal. Urologic evaluation revealed a bulbar urethral hematoma, and a suprapubic catheter was placed. An emergency CT scan of the head that included windows of the base of the skull was normal. Multiple (approximately 30) lumbar punctures were attempted by several physicians, but no fluid was obtained. All attempts were made with the patient positioned horizontally in the lateral decubitus position. No accidental or deliberate introduction of air into the subarachnoid space was reported by any of the physicians attempting spinal tap. The patient was empirically started on broad spectrum antibiotic therapy for possible bacterial meningitis, with a plan to obtain cerebrospinal fluid under fluoroscopy the subsequent morning. His mental status deteriorated rapidly during the night and he was transferred to the ICU. CT scan of the head was repeated using contrast medium and revealed pneumocephalus in the region of the right frontal lobe of the brain (Figure). A lateral view of the skull also showed pneumocephalus.

The patient underwent successful lumbar puncture under fluoroscopy the next morning. The cerebro-spinal fluid revealed no evidence of meningeal infection. A toxicology screen obtained on admission was positive for cocaine in the urine, and blood cultures were positive for Staphylococcus aureus. The patient’s mental status improved steadily. A third CT scan of the head obtained three days after the second showed no pneumocephalus. The patient was discharged from the hospital a few days later.

Although pneumocephalus has been reported in association with head trauma, mask CPAP, nasal CPAP, and rapid ascent to the surface by scuba divers,1,2 it has not been reported to occur with lumbar punctures. In fact, repeated lumbar taps have been used to treat increased intracranial pressure due to pneumocephalus.3-5 Our case shows that, in a case where lumbar puncture is difficult, it is probably more prudent to do the procedure under fluoroscopy rather than risk a pneumocephalus and its manifestations.

Gurdeep S. Flora, M.D.; James A. Tuchschmidt, M.D., F.C.C.P., and Om P. Sharma, M.D., F.C.C.P., USC Medical Center, Los Angeles

REFERENCES


Gemfibrozil Interaction with Warfarin Sodium (Coumadin)

To the Editor:

Gemfibrozil (Lopid) had been marketed for the treatment of severe triglyceridemia. In man, gemfibrozil therapy has been shown to inhibit peripheral lipolysis and to decrease the hepatic extraction of free fatty acids, thus reducing hepatic triglyceride production. A 38-year-old woman with pulmonary embolism had been taking warfarin, 5 mg daily, for five months and had been well controlled prior to initiation of gemfibrozil therapy.

Gemfibrozil (1,200 mg daily in divided doses) was prescribed for...