CORRESPONDENCE

Fig. 1. The Mayfield neurosurgical horseshoe headrest in use with the Relton-Hall operating frame. The cephalad posts of the operating frame are behind the arms, leaving the axillae free. (Illustration kindness of Susan Hitchins, R.N., and Thomas P. Keon, M.D.)

head be supported at a considerable distance above the operating table. In the original and subsequent report of its use, pillows constructed from many folded sheets supported the head, which was then turned to the side. This is less than ideal, because the head tends to be unstable. We have substituted the Mayfield neurosurgical horseshoe headrest,† and found that it allows the head to be securely maintained at the proper height (fig. 1). The disadvantages of the horseshoe neurosurgical headrest include pressure on the eyes if the head is not correctly positioned on the headrest, which has been adjusted to the correct width. The risk of trauma to the eyes is greatest in the pediatric population, due to the great variation in the transverse diameters of the frontal bone. Despite this disadvantage, we have employed the horseshoe headrest with the Relton-Hall frame in 30 procedures without complications attributable to position or these devices.

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REFERENCES

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Thrombotic Occlusion of a Nasotracheal Tube

To the Editor: — We wish to call attention to a hazard of endotracheal intubation. A young female patient had sustained massive head trauma in a bicycle accident, necessitating prompt neurosurgical intervention. Her trachea was intubated in the emergency room using a nasotracheal tube with a low-pressure cuff. The intubation was associated with brisk bleeding from the nares. After intubation, her lungs could be ventilated easily, and breath sounds on auscultation were normal. The endotracheal tube was not, however, suctioned after intubation. About an hour later, during the craniotomy, complete occlusion of the airway developed abruptly. A patent airway was secured by reintubation orally with a new endotracheal tube.

†Model 35-1078, -1076, Codman & Shurtleff, Inc., Randolph, Massachusetts 02368.

Fig. 1. The obstructed endotracheal tube and the intraluminal thrombus.
Hemoptysis from a Pulmonary-artery Catheter

To the Editor:—We have observed a patient in whom hemoptysis associated with a fan-shaped density on chest roentgenography developed following placement of a pulmonary-artery catheter. An 83-year-old paraplegic woman arrived in our emergency room in septic shock (mean blood pressure 40 torr) from pyonephrosis. Following treatment with fluids, antibiotics, steroids and digoxin, the patient was brought to the operating room for a right pyelolithotomy. A triple-lumen balloon-tipped catheter was inserted into the right subclavian vein using an introducer and its location verified by pressure tracings. Pulmonary arterial pressure was 32/15 torr and pulmonary capillary wedge pressure (PCWP) was 11 torr. Anesthesia was induced with thiopental and maintained with nitrous oxide, fentanyl and pancuronium. After the patient was turned to the left lateral decubitus position, adequate tracings from the pulmonary-artery catheter were difficult to obtain despite balloon inflation, 1-inch withdrawal of the catheter, and frequent flushings. Arterial pressure was maintained at 140/90 torr and pulse 80–90/min.

In the recovery room, with the patient supine, pulmonary arterial tracings were obtained. Pulmonary arterial diastolic (PAD) pressure and pulmonary capillary wedge pressure (PCWP) were zero during a period of supraventricular tachycardia (144/min) and arterial hypotension (60/40 torr). A roentgenogram of the chest at this time was normal. Eighteen hours after operation bright red blood (100–200 ml) was suctioned from the endotracheal tube. Fiberoptic bronchoscopy did not reveal a source of bleeding. A portable chest roentgenogram taken at this time showed bilateral pleural effusions and a fan-shaped localized infiltrate in the right lung distal to a pulmonary-artery catheter tip. A catheter loop is visible in the heart.

Fig. 1. Roentgenogram of the chest, showing bilateral effusion and a fan-shaped localized infiltrate in the right lung distal to a pulmonary-artery catheter tip. A catheter loop is visible in the heart.

Asymptomatic fan-shaped roentgenographic densities at the tips of pulmonary-artery catheters have been reported previously.1 Mechanical erosion or perforation2 from catheter tip motion, or an actual tear of the artery wall from balloon overinflation, coupled with a large catheter loop, may have caused