Communication to the Editor

Evaluation of Endotracheal Tube Position with the Fiberoptic Intubation Laryngoscope

To the Editor:

A recent report by Zwillich et al on the complications of assisted ventilation indicated that malposition of the endotracheal tube was one of the major factors increasing morbidity and mortality in acute respiratory failure. The usual method of determining endotracheal tube placement is with a portable chest roentgenogram, although in a busy intensive care unit, there may occasionally be undue delays or omissions in making or interpreting these roentgenograms.

In an attempt to establish a rapid and reliable method of assessing endotracheal tube position, we have used a fiberoptic intubation laryngoscope (American Optical Corp model 1650) for direct visualization of tube position. This fiberoptic laryngoscope (Fig 1) is battery operated, thus requiring no additional light source or equipment for use. It can be sterilized and stored in the intensive care unit for ready availability.

The fiberoptic laryngoscope is passed easily through a No. 7 or larger endotracheal tube while the patient is transiently removed from the ventilator. With little training, the position of the tip of the endotracheal tube in relationship to the carina is easily assessed. This technique allows definitive positioning of the endotracheal tube and obviates the necessity for frequent chest x-ray films for identification of the endotracheal tube position. At the current time, physicians are evaluating the positions of the endotracheal tubes in all patients intubated in the intensive care unit, and anesthetists are utilizing the instrument for tube positioning in patients following open-heart surgery.

It is hoped that use of this instrument will decrease morbidity associated with tube malposition.

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Reference


Surgery for Coronary Artery Fistula

To the Editor:

A communication entitled “Congenital Coronary Artery Fistula with Myocardial Infarction” (Chest 65:233-234, 1974) recommended surgical repair in all roentgenographically demonstrated coronary artery fistulae. This case presentation suggests re-examination of this recommendation.

In 1966 a 51-year-old black woman was found to have a coronary artery-to-right ventricular outflow fistula. Preoperative findings included a pulmonary flow of 1.7 times the systemic flow, electrocardiographic left ventricular hypertrophy and left ventricular strain, cardiomegaly, pulmonary artery pressure of 58/19, and aneurysmal dilatation of the main left coronary artery. The fistula arose from the proximal left anterior descending coronary artery. No right coronary artery could be found at preoperative catheterization or at operation. The fistula was closed from the right ventricular outflow approach to preserve any myocardial branches from the fistula. Postoperative findings included a loss of the murmurs; a gradual return of the electrocardiogram, heart size, and left coronary artery size to normal; and an improvement of preoperative fatigue and dyspnea with exertion.

In July 1973, after several days of preinfarction angina, the patient had a transmural anterior myocardial infarction with appropriate serial electrocardiographic and enzyme changes. Coronary arteriography failed to demonstrate a right coronary
artery, and there was proximal complete occlusion of the left anterior descending coronary artery and a large smooth-walled circumflex artery. The site of occlusion was the origin of the previously repaired coronary fistula.

In this patient, there were several clinical indications for closure of the fistula in 1966: cardiomegaly, left ventricular hypertrophy and left ventricular strain on electrocardiogram, pulmonary hypertension, large left-to-right shunt, aneurysmal dilation of the main left coronary artery, and symptoms related to the left-right shunt. It is quite likely that a clot originating at the right ventricular outflow site of the fistula closure propagated retrogradely to occlude the left anterior descending coronary artery at the site of origin of the fistula. No evidence of coronary artery disease was found at catheterization in 1966, and the left circumflex artery was large and smooth-walled at catheterization after myocardial infarction in 1973.

There are long-term studies of coronary artery fistula patients demonstrating no deterioration of myocardial function, and there are many reports of longevity in this condition. Because of operative risks plus late risks, as demonstrated by this patient, operative intervention might be reserved for those patients demonstrating significant left-right shunt, bacterial endocarditis, pulmonary hypertension, congestive failure, cardiomegaly and electrocardiographic changes, aneurysm or rupture of coronary artery or fistula, thrombosis, or myocardial ischemia. We have found treadmill examination useful in evaluating myocardial ischemia in the absence of the other operative indications listed above. The curative operative procedure, in addition to operative risks, may lead to late complications, as demonstrated in this patient, and therefore, should probably be reserved for patients with clinical indications for surgery.

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REFERENCES

To the Editor:

There seems little question that patients having symptoms from a congenital coronary artery fistula should have operation. The rarity of this lesion makes the decision for routine closure in asymptomatic patients difficult. Extrapolation of the experience in the management of patients with atrial septal defects, patent ductus arteriosus, and ventricular septal defects suggests that these fistulas should be closed. Long-term survival has been documented in a few of these lesions, but most studies have indicated shortened life spans for the majority of patients.

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Metastatic Hypernephroma Presenting as Bilateral Hilar Adenopathy

To the Editor:

We have read with great interest the report by Khan and Khan in the December issue (Chest 66: 722-723, 1974), in which they described a case of metastatic hypernephroma presenting as bilateral hilar adenopathy. We recently have had the opportunity to study a similar case.

CASE REPORT

A 53-year-old black man came to the Cleveland Clinic with the chief complaint of a nonproductive cough of two to three months' duration. The findings on physical examination were entirely normal. A chest x-ray film (Fig 1) showed symmetric bilateral hilar adenopathy with otherwise clear lung fields. The diagnosis of sarcoidosis was suspected clini-