Of apparently well were justify or inflammatory CHEST, Medicine, concentrations from Blood these, one was a subcarinal node which was probably beyond the surgical specimen and one had a local recurrence in the area of the hilar abnormality three months after surgery. Four were undeniably false positive. This is not unexpected since inflammatory nodes are indistinguishable from neoplastic nodes on tomography.

These data indicate that oblique tomography is not sensitive or specific enough to be used in preoperative staging of carcinoma of the lung, although a "negative" study correlates well with the absence of enlarged nodes.


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REFERENCES


Blood Potassium Measurements during CPR

To the Editor:

The electrophysiologic effects of altered serum potassium concentrations upon the myocardium are recognized to include a wide variety of potentially harmful arrhythmias.1-3 To determine if unsuspected and clinically significant hyper- or hypokalemia was present initially or developed during resuscitation efforts, the potassium concentration was measured in heparinized arterial blood sent for blood gas analysis from a group of unselected patients undergoing cardiopulmonary resuscitation (CPR). We also wished to evaluate if abnormal potassium levels were found frequently enough to justify "stat" measurements routinely during all CPRs.

A total of 77 specimens (range per patient, 1-7 samples) were analyzed from 27 patients. In 17 patients, serial specimens during the same CPR were available. Following blood gas analysis, specimens were centrifuged and the plasma separated. Samples were discarded if hemolysis was detected visually. A standard flame photometric technique (Instrumentation Laboratories, model 143) was used to measure the potassium concentration. Ward et al4 have recently demonstrated that arterial (plasma) potassium levels are an average of 0.5 mEq/L lower than serum values from simultaneously drawn venous blood. Therefore, this factor was added to the arterial measurements to better correlate these data with the known effects of intravascular potassium on cardiac function.

Although the electrophysiologic effects of potassium are reflected upon the electrocardiogram, a precise correlation between the occurrence of arrhythmias and a specific level of hyper- or hypokalemia does not exist in each patient.1 Therefore, a range of acceptable serum potassium values, 2.5-6.7 mEq/L, was adopted based upon reported cardiac sensitivities and the assumption that the physician conducting the CPR may consider modifying therapy if the patient's potassium level was known to be outside that range.

The directly measured arterial potassium concentration was outside the stated range in two patients (7.4 percent). Both of these values remained beyond the defined limits. One patient was added to the group to total three (11 percent) after the serum conversion factor was applied. In each, the potassium exceeded the upper range limit. One of eight (12.5 percent) patients undergoing CPR in the emergency room had high potassium values. None of the 17 patients for whom serial samples were available developed out-of-range concentrations during CPR despite marked changes in blood pH.

Therefore, less than 11 percent of patients undergoing CPR had an abnormal blood potassium which might have caused arrhythmias. In the emergency room where the etiology of the cardiac arrest and prior electrolytes will be unknown, only 12 percent of a small patient group had abnormal values. It is concluded that measurement of blood potassium concentrations obtained routinely as part of an in-hospital CPR will be a low-yield procedure, but if obtained, a single measurement from either arterial or venous blood will identify those patients in whom therapy might be beneficial.

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Mitral Regurgitation in Ventricular Premature Contractions

To the Editor:

The recent paper by Marzilli et al (CHEST 1980; 77:736-40) studies an important question: the role of the papillary muscle in mitral valve closure. The authors focus on the relation between ventricular premature contractions and mitral regurgitation and they interpret their hemodynamic

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