Laver proposes use of nitroglycerin (NTG) and epi-
nephrine or dopamine in combination to provide
control of capacitance vessel tone along with reduction
in elevated RV filling pressures. NTG may also recruit
coronary vasodilator reserve. The effect of combined
use of NTG plus a pressor on RV myocardial blood
flow and RV coronary vasodilator reserve is not known
at this time.

In this issue of Chest (see page 1333), Angle and
coworkers, in a canine model of pulmonary embolism
of sufficient severity to decrease measured cardiac
output, demonstrated that norepinephrine (NE) ti-
trated to increase the systemic blood pressure pro-
duced significant improvement in ventricular per-
formance without compromise in renal blood flow or
function. In addition, NE therapy did not increase
pulmonary vascular resistance. In their discussion,
the authors propose increased RV contractility and
augmented right coronary perfusion as possible means
for the improvement in RV performance seen. No
objective data are provided, however, to permit dis-
tinction between these two potential modes of RV
performance improvement.

There is considerable reluctance among intensive
care physicians to use NE in the supportive manage-
ment of RV dysfunction. This reluctance is based on
the reported contributions to renal insufficiency as-
associated with NE therapy. In a recent clinical study,
Desjars et al failed to show deterioration in renal
function and described improved renal performance
with the use of NE. A possible explanation is found in
work demonstrating decreased proximal tubular reab-
sorption with increased renal perfusion pressure. In
addition, there is increased sodium and water delivery
to the distal tubule. Schaer et al in a recent experi-
mental study observed that impairment of renal
blood flow caused by NE could be reversed by
simultaneous infusion of low-dose dopamine. The
clinical role for NE and dopamine administration in
support of RV performance and renal function re-
 mains to be established.

To summarize, in low cardiac output states compli-
cating acute pulmonary hypertension, RV perform-
ance can be improved by careful volume resusci-
tation with restoration of coronary perfusion pressure. Angle
and associates suggest that such therapy can be implemen-
ted without peripheral vascular compromise
and end organ injury previously associated with NE
administration. This form of therapy warrants addi-
tional clinical and laboratory evaluation.

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Roentgenologic Diagnosis of Emphysema

Accurate or Not?

In the recent editorial on the diagnosis of emphy-
sema, referring to the article by Rothpearl et al, reference
is also made to some previous studies on the
subject. These previous studies, including our study and
table editorial, are quoted as attempting “to
identify methods for early recognition of chronic
obstructive pulmonary disease.” This was not the

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intent of these studies. Both our own study\(^5\) and the others referred to\(^3-4\) assessed only whether the presence of airways obstruction, *early* or *late*, could be reliably identified by the standard chest roentgenogram; these studies never suggested, as implied by the editorial, that "early emphysema" could be reliably and specifically recognized by the chest roentgenogram. Indeed, to the contrary, our own article\(^5\) explicitly pointed out that the chest roentgenogram, while quite specific in confirming the presence of airflow obstruction when the right diaphragm dome is below the anterior end of the seventh rib on the right, is, in fact, not very sensitive in identifying the presence or absence of emphysema. It was never suggested, either in the original article\(^5\) or in the subsequent editorial,\(^6\) that the chest roentgenogram should be used as a screening test for airflow obstruction. What we did find and stressed was that, in the presence of the diaphragm dome sign, airflow obstruction can be reliably diagnosed.

While the editorial claims that the presence of emphysema can be diagnosed "with virtually no false positive . . . or false negative interpretations," it is important to note that this conclusion is derived\(^7\) from data from a two-decade-old study\(^8\) with supporting data from one other study.\(^4\) However, the latter workers went on to report, in what is probably the largest study\(^9\) correlating emphysema with chest roentgenology and which included 696 patients, that the chest roentgenogram is certainly nowhere near as specific as the editorial would have us believe.

Even though the latter study has been dismissed on rather dubious grounds,\(^7\) repeated studies on this subject indicate that Thurlbeck and Simon\(^10\) were correct; for example, recent studies, using computed tomography of the chest,\(^11,12\) have confirmed that many cases of pulmonary emphysema are not detected reliably by the chest roentgenogram,\(^11\) or that emphysema may be overdiagnosed by chest roentgenography.\(^12\) Thus, it remains a matter for interpretation whether to accept the editorial contention of the accuracy of diagnosis of emphysema, mild or severe, from the chest roentgenogram, based on one small study\(^7\) or whether it would behoove us to look at the large accumulation of contrary data on the subject, including studies which, to date, have examined nearly 1,000 subjects\(^10-14\) and have concluded that the diagnosis of emphysema from the chest roentgenogram is not very accurate or specific.

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