duce right ventricular dysfunction. Patients with pre-existing myocardial dysfunction generally have a large LAP-RAP gradient, so that PEEP would be unlikely to provoke paradoxical movement of air.

Our study addressed only the safety and not the efficacy of PEEP for patients in the supine and seated positions. PEEP should be effective in decreasing venous air embolism during head and neck or pelvic procedures when the operative site is above the right atrium. It is not yet established whether PEEP is effective in decreasing venous air embolism during neurosurgical procedures in patients in the seated position. We do not advocate the routine use of PEEP during procedures with risk for venous air embolism. On the basis of our clinical and experimental studies, we believe that the application of up to 10 cm H₂O of PEEP when venous air embolism does occur is not hazardous. Although data exist that suggest that such application of PEEP may decrease air embolism and aid in detecting its source, additional studies are required to determine the role of PEEP in such situations.

RONALD G. PEARL, M.D., Ph.D.
Assistant Professor of Anesthesia

C. PHILIP LARSON, M.D.
Professor of Anesthesia
Department of Anesthesia
Stanford University Medical Center
Stanford, California 94305

REFERENCES


2. Pearl RG, Larson CP Jr: Hemodynamic effects of positive end-expiratory pressure during continuous venous air embolism in the dog. ANESTHESIOLOGY 64:724–729, 1986


(Accepted for publication January 13, 1988.)

Carboxyhemoglobin and P₅₀ in Pregnancy

To the Editor—We have several comments regarding the report describing elevated carboxyhemoglobin levels as a mechanism for a decrease in P₅₀ in preeclamptic women. First, the authors did not sufficiently specify the two groups of women compared in their study. For example, they did not mention whether these women were from the same geographic area. A national survey in North America found that 1–2% carboxyhemoglobin levels are not unusual in urban non-smokers as a result of environmental exposure. In addition, one should consider that even passive smoking can lead to increased carboxyhemoglobin levels in nonsmokers. Second, and of greater importance, is that a decrease in P₅₀ of 5.7 mmHg in preeclamptic women compared with normal pregnant women can hardly be explained by an increase in carboxyhemoglobin level of 2.1%. The average influence of carboxyhemoglobin on P₅₀ can be estimated using the formula dP₅₀/dCOHb = −0.27. This would account only for a 0.57 mmHg decrease in P₅₀. In other words, the cause of 90% of the difference in P₅₀ remains unexplained. Finally, when discussing shifts of the oxyhemoglobin dissociation curve during standardized conditions (pH = 7.4; pCO₂ = 40 mmHg), the concentration of intraerythrocytic 2,3-DPG should always be stated.

Dr. W. Hasibeder
Dr. M. Haisjäckl

REFERENCES


(Accepted for publication July 13, 1988.)