Dirk Bruegger
Matthias Jacob
Stefan Scheingraber
Peter Conzen
Bernhard F. Becker
Udilo Finsterer
Markus Rehm

Changes in acid-base balance following bolus infusion of 20% albumin solution in humans

Published online: 16 February 2006
© Springer-Verlag 2006

The online version of the original article can be found at
<http://dx.doi.org/10.1007/s00134-005-2683-4>

D. Bruegger (✉) · M. Jacob · P. Conzen · U. Finsterer · M. Rehm
Ludwig-Maximilians-University, Clinic of Anesthesiology,
Munich, Germany
e-mail: dirk.bruegger@med.uni-muenchen.de

S. Scheingraber
University of Homburg, Department of Surgery,
Homburg, Germany

D. Bruegger · M. Jacob · B. F. Becker
Ludwig-Maximilians-University, Department of Physiology,
Munich, Germany

Intensive Care Med (2005) 31:1123–1127

Due to an error on our part in the calculation of titratable acidity of the 20% albumin solution, the value has been rendered incorrectly. The correct value is 8.5 mEq/l. This correction applies to the Abstract (measurements and results, last sentence) and the Discussion (last paragraph, first sentence). Moreover, in the Results, the fourth paragraph should have read as follows:

The 20% albumin solution had a measured pH of 6.95. For 1 l, 8.5 mEq NaOH was required to bring the pH to 7.40. In the present study a mean of 75 g albumin, corresponding to approximately 375 ml of the 20% albumin solution, was administered; thus, approximately 42.6 nmol free H^+ was added. This obviously cannot elicit a detectable effect on blood pH in vivo; however, pH is no indicator of a solution's latent ability to buffer OH^- equivalents [2]. In other words, molecules of acid not only impart acidity, as measured by pH, but constitute a reservoir of H^+ . The addition of a mean of 375 ml 20% albumin solution with a titratable acidity of 8.5 mEq/l is equal to a requirement of 3.2 mmol OH^- . Assuming that this amount of OH^- would have been taken from a volume of water equal to that of total body water (approximately 40 l), an increase in $[H^+]$ by 0.08 mmol/l and a blood pH of 4.1 would result.

Although we regret the error, it should be noted that there is no change whatsoever in the conclusions drawn from these data.