LETTER TO EDITOR

In Response to Colloids Use in Asian ICU Patients: Do not Mix Oranges with Apples. Consider the Proven Concerns on Hydroxyethyl Starch Use in ICU patients

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Sir

We would like to address the aforementioned points and thank the authors for giving us the opportunity to further elaborate on the topic. They raise an important issue when they point out that evidence concerning safety of different colloid solutions in the intensive care unit (ICU) is inconsistent. For example, there are no large interventional studies with gelatin in ICU patients, so these colloids rather lack substantial safety data that would allow the conclusion that they have a better safety record than hydroxyethyl starch (HES). Yet, our intention was not to provide an analysis of different colloids, but to get an overview of colloid use overall in the Asian ICU setting. As the authors of the letter mention themselves, HES was given to a minority of patients and therefore, the study does not allow any conclusions whether HES specifically provided any benefit or caused harm compared to other colloids. However, most colloids given in the RAFTA registry were used early and with comparably low dose. The studies that reported harm with HES (VISEP,[1] CHEST,[2] 6S[3]) have used high doses over prolonged time periods, which both were substantially above those reported in RAFTA. Possibly, as the intensivists in RAFTA were free to adapt their use of colloids to the individual situation instead of following a rigid study protocol, they were able to use colloids as they should be used—timely and with the minimal effective dose. In this context, as with all medication, the dose makes the poison. In fact, analysis of mixed colloid use is a valid scientific approach: the CRISTAL[4] study, which collected data from an international ICU population that received timely fluid resuscitation with predominantly HES, gelatins, and albumin, found a comparable 28 days mortality and a reduced 90 days mortality with colloids vs crystalloids.

The authors of the letter also seem to indicate that the sponsorship of the RAFTA registry by Fresenius Kabi is a somewhat dubious fact. They may be reminded that VISEP and 6S were sponsored by B. Braun, another manufacturer of HES solutions, and CHEST by Fresenius Kabi. The letter also seems to indicate that HES might have been used outside its indication. Again, they may be reminded that this was not a randomized study, but reflects best practice in a real world setting, where doctors decide what is best for each individual patient. There was a substantial number of patients without sepsis or chronic kidney disease, which makes it perfectly possible that intensivists decided individually that use of colloids and even of HES—which has not been banned completely in any country worldwide—might have been the right choice.

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The real issue with colloid therapy is the fact that colloids are a small part of a multimodal approach to stabilize hemodynamics in very ill patients. Of course, they have indications, contraindications, and dose-specific benefit and harm. Completely banning them in the setting of hemodynamic stabilization without reflecting the individual patient's complex clinical situation might cause more harm than good. The intensivists participating in RAFTA seem to have been well aware of this fact.

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