

Letter to the Editor

Allergic reaction after dextran

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Sir,

With great interest we read the study by Zdolsek et al.¹ on the dynamics of blood volume expansion in patients undergoing hip arthroplasty and receiving three hydroxyethyl starch (HES) solutions and a dextran solution. The authors also described coagulation effects of colloids and concluded that all colloids induced a mild hypercoagulable state with faster onset of clotting but decreased clot strength with less important differences between the four test infusions. This result may lead to the misinterpretation that all four colloids are equally safe. However, even with hapten pre-medication, 1 out of 19 patients exposed to dextran experienced a severe allergic reaction so that surgery had to be cancelled (as given in Fig. 1 in Zdolsek et al.¹). A detailed description of the severity or maybe lethal ending is missing. Dextran has repeatedly been shown to cause severe anaphylactic reactions² and dextran is no longer in clinical use in most Western countries. Who would be interested in reading a paper comparing halothane with desflurane or sevoflurane? Why did Zdolsek et al. use outdated dextran as a comparator with HES products with an improved overall safety profile? Lower acquisition costs for dextran cannot be an argument for choosing this colloid because higher total costs most likely incur for treatment of morbidity (e.g. allergic reactions) and compensation of lost operating room capacity. Differences between HES generations should be acknowledged when choosing the colloid.³ Tetrastarch reduced blood loss and transfusion requirements compared with pentastarch in major surgery.⁴

The authors only reported percent changes from baseline but no absolute coagulation values with variances. Considering that baseline values of maximum clot firmness and clotting time were in the normal range, observed relative changes (of 5–15%) are most likely not clinically relevant and absolute changes not statistically significant. Zdolsek et al.¹ analysed coagulation using INTEM[®] and NATEM[®] test. The FIBTEM[®] test may be recommended for monitoring dilutional coagulopathy considering fibrinogen-dependent clot strength as one of its key factors.⁵

The total intraoperative fluid administered in this study ranged between 2180 ml (dextran group: crystalloids and colloids) and 2317 ml (HES 200 group: crystalloids and colloids) with a mean of 2227 ml (n = 83). Do Zdolsek et al. advocate a

liberal management rather than a goal-directed restrictive fluid concept?^{6,7}

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