measure of insulin sensitivity, that is, it has both high sensitivity and specificity for detecting insulin-resistant women. We know that other more complex tests may be used, but at present, there are no other studies that have refuted the validity of this ratio. The strength and convenience of this ratio for evaluating insulin sensitivity will require continued evaluation.

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Comparative efficacy of hydroxyethyl starch and Haemaccel in the treatment of severe ovarian hyperstimulation syndrome

To the Editor:

With interest we have read the paper of Gamzu and co-workers (1). However, we are profoundly surprised about some of the results.

Haemaccel (Aventis Pharma, Frankfurt, Germany) is a volume replacement solution with 3.5% urea-linked gelatin. From the actual scientific knowledge its volume effect has been proven to be shorter and of less extent than the volume effect of HAES-steril 10% (Fresenius Kabi, Bad Homburg, Germany), a volume substitute consisting of 10% HES 200/0.5 (2–4). Some data even show a marked difference between the volume effects of these two solutions (5).

Thus, we cannot understand why Gamzu and co-workers found patients in the hydroxyethyl starch (HES) group needing about one-third more volume (mean, 3,808 mL HES solution) than patients in the gelatin group (mean, 2,667 mL gelatin solution). In addition, we are surprised about the fact that these different dosage regimens lead to a comparable reduction in hematocrit (mean, 7% in each group). The only slightly elevated urine excretion in the HES group (mean, 1,336 mL/24 hour compared with mean of 1,217 mL/24 hour in the gelatin group) cannot explain these findings.

The different demand in colloidal solutions could be caused by differences in severity of ovarian hyperstimulation syndrome being more pronounced in the HES group. However, this also cannot explain the hematocrit findings. We suppose that there must have been additional factors involved that are not obvious from the article. If such additional factors existed, the conclusions from the results have to be reconsidered.

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Reply of the Author:

We kindly welcome the interest of Schimetta and co-workers in our recent article. From the physicochemical point of view, hydroxyethyl starch (HES) with MW of 200 kD and 0.5 degree of substitution are regarded as rapidly degradable. Such molecules are relatively quickly split in vivo into smaller, more favorable molecule sizes, resulting in faster renal elimination, shorter volume effect, and fewer adverse effects on coagulation and rheological parameters. Although, these medium mass HES still may have longer fluid effect than 3.5% urea-linked gelatin (Haemaccel) (1), this difference is modest compared to HES’s with high MW, high degree of substitution or high C2/C6 ratio. Accordingly, such physicochemical differences may not translate to clinical end points such as hematocrit (2) in other medical situations, as well as in ovarian hyperstimulation syndrome (OHSS) (3).

Although the differences in the total volume used in the HES compared with the gelatin group (mean, 3,808 mL HES vs. a mean of 2,667 mL gelatin solution) did not reach statistical significance, we agree it is puzzling. We speculate it may result from issues of learning curve and clinical confidence in the use of a new product (HES).
Aging, twinning, and perinatal outcomes

To the Editor:

Zhang et al. (1) found that in contrast to the pattern seen with singleton births, twins born to older mothers are not at greater risk than twins born to younger mothers, and that triplets born to older mothers actually fare better than triplets born to younger mothers.

These observations confirm our previous finding in twins (2, 3), as well as in triplets (4) and are of interest and importance. The question is, however, what is the explanation for this phenomenon. Zhang et al. presented four potential explanations including the lower occurrence of monozygotic sets among iatrogenic conceptions, use of young donor eggs for older mothers, better antenatal care, and better financial background of the older mother. Indeed, the frequency and, in particular, the complications related to monozygotic splitting are quite rare in iatrogenic multiples, but so they are in spontaneous conceptions. Hence, different monozygotic rate may not entirely explain the differences in outcome. The outcome of young eggs should be similar whether they come from a donor or form the individual’s ovaries. Hence, the use of young donor eggs could make outcome similar, but not improved in the older mothers.

The other two explanations are much more convincing. Indeed, close antenatal follow-up in these high-risk pregnancies may improve outcome (4). Needless to say, close prenatal observation is costly. We found that triplet pregnancies under specialized care have almost 50% fewer deliveries at less than 28 weeks compared with the general U.S. population (4). Moreover, the events preceding delivery cannot be overlooked and it is quite possible that close observation of “premium” pregnancies enables earlier intervention that leads to better outcome.

We would like to draw the attention of Dr. Zhang and coauthors to two potential variables that were not assessed in their study. The first relates to maternal size. It is quite possible that older mothers have higher body mass index or different height; two established factors associated with improved birth weights in multiples (4). In our dataset, taller mothers delivered significantly heavier triplets than shorter controls (4). Second, the adjusted parity may not be enough as the potential influence of gravidity may have a significant role. In our dataset, older mothers of triplets were of higher gravidity than matched for parity younger controls (4).

Besides delivering an encouraging message to the older mothers of multiples, this article may imply that all multiples deserve the special attention, which would appear, at least in this article, to be the prerogative of mothers of an affluent social class.

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Reply of the Authors:

Drs. Blickstein and Keith suggested that maternal size and gravidity might also contribute to the muted or even reverse relationship between maternal age and perinatal outcomes in multiple gestation. We are unable to directly address the issue on maternal size because we do not have information on maternal height and weight. But we know that most triplet gestations in older women were due to fertility treatment (1), and these women were generally bet-