Response to comment on: "perioperative blood glucose monitoring and control in major vascular surgery patients"

We would like to thank the authors for their comments on our review article. Several studies have reported a high prevalence of diabetes mellitus (DM) in patients undergoing vascular surgery. Dunkelgrun et al. demonstrated that the use of oral glucose tolerance testing, detected DM in 75% of the patients that would have been missed using fasting plasma glucose measurement only.\(^1\) This study emphasized the need for more intensive screening for DM in the high-risk vascular surgery patients. Malmstedt et al. performed a prospective observational study of a small group of diabetic patients scheduled for infrainguinal bypass surgery, and observed that poor perioperative glycaemic control was associated with unfavourable outcome and local complications.\(^2\) From a pathophysiological point of view it is really hard to study the cause—effect relation regarding DM and local complications, like wound infection. On the one hand, the presence of DM in vascular surgery patients increases the risk of perioperative hyperglycaemia with related inflammatory complications. On the other hand, vascular surgery creates an inflammatory response which can be accelerated by dysregulated DM.

Studies in vascular surgery patients with DM regarding outcome have shown conflicting results. In-line with Malmstedt et al., other studies have demonstrated adverse outcome in diabetic patients with poor perioperative glycaemic control.\(^3\) On the other hand Axelrod et al. performed the largest study in major vascular surgery patients and demonstrated that only patients perioperatively treated with insulin had an increased risk of cardiovascular complications.\(^4\) Finally, randomized controlled trials in critically ill patients have shown the same conflicting results.\(^5\) Therefore, a randomized controlled trial in vascular surgery patients with preoperative testing for impaired glucose tolerance and DM, and subsequent intensive glucose monitoring and control is warranted.

References