ABSTRACT

Stroke volume variation (SVV) as an indicator of intraoperative transfusion management during laparoscopic colectomy

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Background: Intraoperative transfusion management is difficult during laparoscopic surgery, because pneumoperitoneum affects hemodynamics.

We studied whether stroke volume variation (SVV) is useful as an indicator of transfusion management.

Methods: We studied 444 patients undergoing laparoscopic colectomy. Patients were randomly allocated to two groups, and the volume of transfusion
was decided with the SVV as an indicator in one group (SVV group, n = 22) or with conventional indicators, such as blood pressure, heart rate, volume of urine in the other group (control group, n = 22).

Results: In the SVV group, total transfusion volume and total blood loss during operation were significantly decreased, and the length of hospital stay was significantly shorter, comp
ared with the control group.

Conclusions: We believe that the SVV is a useful indicator of intraoperative transfusion management during laparoscopic colectomy.

Key words: transfusion management, hormone, stroke volume variation