the main purpose of this study was to clarify the roles of organ failure and infection in the outcome of necrotizing pancreatitis, we invite the authors to conduct similar studies for further research.

Disclosure: The authors declare no conflicts of interest.

Qiang Guo, MD
Weiming Hu, MD
Pancreatic Surgery
West China Hospital, Sichuan University
Chengdu, Sichuan Province, China
huweiming64@gmail.com

REFERENCES

Preoperative Aspirin-dosing Strategy and Mortality After Coronary Artery Bypass Graft Surgery

To the Editor:

In a retrospective analysis assessing association between preoperative aspirin dosing strategy and 30-day all-cause mortality after coronary artery bypass graft (CABG) surgery, Deng and colleagues showed that low-dose aspirin use within 24 hours of CABG surgery was independently associated with decreased early postoperative mortality. Strengths of this study include a large sample of patients, with multivariable and propensity matching analyses to adjust influences of potential confounders on study endpoints. Other than the limitations described in the discussion, however, we note other issues of this study making interpretation of their results questionable.

First, the perioperative hemoglobin levels were not provided, though they are routinely monitored in cardiac surgical patients. It has been shown that preoperative anemia is common among patients undergoing CABG surgery and is an important risk factor for early and late mortality. Furthermore, the combined mortality risk of anemia and transfusion is nearly triple that of a nonanemic patient not receiving transfusion. Similarly, hemodilution anemia (a hematocrit of <24%) during cardiopulmonary bypass has been associated with increased mortality after CABG surgery. In addition, postoperative anemia is also common, frequently persists for months after CABG surgery, and is associated with an impaired postoperative outcome. When postoperative hemoglobin level is considered as a continuous variable, every 1 mg/dL decrease in hemoglobin level is associated with a 22% increase in all-cause mortality. Thus, we cannot exclude the possibility that existence of imbalance in the perioperative hemoglobin levels between groups would have confounded interpretation of their results.

Second, if surgery is successful without severe postoperative complications, CABG surgery should improve cardiac function, physical health status, and quality of life in most patients. Furthermore, it has been shown that the majority of predictors of short-term mortality and morbidity after CABG surgery are cardiac-related variables. In this study, no inclusion of postoperative cardiac variables in multivariable and propensity matching analyses would have tempered with inferences of adjustments for postoperative short-term mortality.

Disclosure: None of the authors received financial support and there are no potential conflicts of interest for this work.

Fu Shan Xue, MD
Gao Pu Lin, MD
Chao Sun, MD
Department of Anesthesiology
Plastic Surgery Hospital
Chinese Academy of Medical Sciences and Peking Union Medical College
Beijing, People’s Republic of China
xuefushan@aliyun.com/fushan.xue@gmail.com

Reply to Letter: “Preoperative Aspirin-dosing Strategy and Mortality After Coronary Artery Surgery”

Reply:

We thank Xue et al for their comments on our recent study published in *Annals of Surgery* about the association between preoperative aspirin dosing strategy and mortality after coronary artery bypass graft surgery. Xue et al suggest 2 potential confounders with our study. First, they suggest that the lack of reported perioperative hemoglobin (Hb) values could potentially confound our finding that low-dose aspirin (ASA) use within 24 hours of coronary artery bypass graft surgery (CABG) surgery is independently associated with decreased early postoperative mortality. Supporting their assertion, they reference previous studies in which perioperative anemia was associated with increased CABG mortality. While we did not factor perioperative anemia into our analyses to adjust influences of potential multivariable and propensity matching. Study include a large sample of patients, with early postoperative mortality. Strengths of this study was to clarify the roles of organ failure and infection in the outcome of necrotizing pancreatitis, we invite the authors to conduct similar studies for further research.

Disclosure: The authors declare no conflicts of interest.

Qiang Guo, MD
Weiming Hu, MD
Pancreatic Surgery
West China Hospital, Sichuan University
Chengdu, Sichuan Province, China
huweiming64@gmail.com

REFERENCES

Preoperative Aspirin-dosing Strategy and Mortality After Coronary Artery Bypass Graft Surgery

To the Editor:

In a retrospective analysis assessing association between preoperative aspirin dosing strategy and 30-day all-cause mortality after coronary artery bypass graft (CABG) surgery, Deng and colleagues showed that low-dose aspirin use within 24 hours of CABG surgery was independently associated with decreased early postoperative mortality. Strengths of this study include a large sample of patients, with multivariable and propensity matching analyses to adjust influences of potential confounders on study endpoints. Other than the limitations described in the discussion, however, we note other issues of this study making interpretation of their results questionable.

First, the perioperative hemoglobin levels were not provided, though they are routinely monitored in cardiac surgical patients. It has been shown that preoperative anemia is common among patients undergoing CABG surgery and is an important risk factor for early and late mortality. Furthermore, the combined mortality risk of anemia and transfusion is nearly triple that of a nonanemic patient not receiving transfusion. Similarly, hemodilution anemia (a hematocrit of <24%) during cardiopulmonary bypass has been associated with increased mortality after CABG surgery. In addition, postoperative anemia is also common, frequently persists for months after CABG surgery, and is associated with an impaired postoperative outcome. When postoperative hemoglobin level is considered as a continuous variable, every 1 mg/dL decrease in hemoglobin level is associated with a 22% increase in all-cause mortality. Thus, we cannot exclude the possibility that existence of imbalance in the perioperative hemoglobin levels between groups would have confounded interpretation of their results.

Second, if surgery is successful without severe postoperative complications, CABG surgery should improve cardiac function, physical health status, and quality of life in most patients. Furthermore, it has been shown that the majority of predictors of short-term mortality and morbidity after CABG surgery are cardiac-related variables. In this study, no inclusion of postoperative cardiac variables in multivariable and propensity matching analyses would have tempered with inferences of adjustments for postoperative short-term mortality.

Disclosure: None of the authors received financial support and there are no potential conflicts of interest for this work.

Fu Shan Xue, MD
Gao Pu Lin, MD
Chao Sun, MD
Department of Anesthesiology
Plastic Surgery Hospital
Chinese Academy of Medical Sciences and Peking Union Medical College
Beijing, People’s Republic of China
xuefushan@aliyun.com/fushan.xue@gmail.com

Reply to Letter: “Preoperative Aspirin-dosing Strategy and Mortality After Coronary Artery Surgery”

Reply:

We thank Xue et al for their comments on our recent study published in *Annals of Surgery* about the association between preoperative aspirin dosing strategy and mortality after coronary artery bypass graft surgery. Xue et al suggest 2 potential confounders with our study. First, they suggest that the lack of reported perioperative hemoglobin (Hb) values could potentially confound our finding that low-dose aspirin (ASA) use within 24 hours of coronary artery bypass graft surgery (CABG) surgery is independently associated with decreased early postoperative mortality. Supporting their assertion, they reference previous studies in which perioperative anemia was associated with increased CABG mortality. While we did not factor perioperative anemia into our analyses to adjust influences of potential multivariable and propensity matching. Study include a large sample of patients, with early postoperative mortality. Strengths of this study was to clarify the roles of organ failure and infection in the outcome of necrotizing pancreatitis, we invite the authors to conduct similar studies for further research.

Disclosure: The authors declare no conflicts of interest.

Qiang Guo, MD
Weiming Hu, MD
Pancreatic Surgery
West China Hospital, Sichuan University
Chengdu, Sichuan Province, China
huweiming64@gmail.com

REFERENCES
analysis, we used both propensity matching and multivariate logistic regression on multiple variables, which have been previously validated as independent risk factors of postoperative mortality in both the EuroSCORE and Society of Thoracic Surgeons risk assessment. Indeed, these are the best known and most widely validated perioperative risk stratification tools for assessing mortality risk in cardiac surgery, and neither uses perioperative anemia as an independent predictor of risk. \(^2\)\(^-\)\(^4\) Furthermore, it is often hard to tease out whether perioperative anemia or transfusion used to treat the anemia is actually more contributory toward increased mortality. Indeed, one of the citations in the letter by Xue et al concluded that anemia without accompanying transfusion did not increase postoperative mortality. \(^5\) As previously noted in our study’s limitations section, we agree that the lack of the transfusion data is a weakness of our study. Correlation between perioperative 

**REFERENCES**


**Laparoscopic Lavage Is Feasible and Safe for the Treatment of Perforated Diverticulitis With Purulent Peritonitis: The First Results From the Randomized Controlled Trial DILALA**

We read with great interest the article by Angenete et al., titled “Laparoscopic Lavage Is Feasible and Safe for the Treatment of Perforated Diverticulitis With Purulent Peritonitis,” in the December issue of *Annals of Surgery.* Although the authors reported that laparoscopic lavage is a feasible and safe treatment for patients with Hinchey III diverticulitis, we feel that some aspects need further clarification. The first observation concerns the flowchart of patients included in the trial (Fig 1). Among 267 patients admitted in 9 surgical departments over a 4-year period, 139 were included in the study, and among those, 83 were finally randomized to 1 of the 2 treatment options.

Of the 128 patients not included, 52 had a Hinchey III diverticulitis, 13 were excluded for surgeon choice or other diagnosis, and 10 were excluded for unspecified reasons. This finding must mean that the patients were enrolled into the study in a nonconsecutive manner, and it also raises the question of a possible selection bias because, taken altogether, those 75 patients almost reach the same number of patients enrolled in the trial. So it would be important to know what kind of treatment was performed in this group.

A second aspect to be discussed is the difference of the percentage of a visible perforation in the colon that was found in 5.2% of the lavage group versus 50% in the Hartmann group. The authors try to explain this difference with a less extensive resection in the lavage group, but only in 4 of 39 patients in the lavage group adhesions were reported as severe whereas in 35 patients the presence of adhesion were judged absent or “average.” This difference among the 2 groups is of not negligible importance because a recognized factor limiting the effectiveness of laparoscopic lavage is the presence of a visible perforation. \(^2\)\(^-\)\(^3\)

Twenty-eight of 39 patients (71.8%) and 21 of 36 patients (58%) in the lavage and Hartmann groups, respectively, had complications, and 3 patients in the lavage group died within 30 days. Were those patients who died in whom the lavage failed? A purulent peritonitis is mostly due to a small perforation spontaneously covered by omentum or small bowel adhesions. Should the lavage fail, the recurrent peritonitis is very often a fecal one, with the patient rapidly deteriorating toward a surgical sepsis. So in the decision-making process, to perform a conservative treatment, the surgeon must include not only the degree of contamination but also the physiologic reserve/derangement of the patient and the burden of comorbid disease.

A systematic review of the clinical course of diverticulitis in immunosuppressed patients showed the following mortality rate: 56% in patients treated conservatively; 43% when exteriorization/colostomy was performed; 20% when primary resection-anastomosis was accomplished; and 14% in patients submitted to the Hartmann procedure. \(^4\) The fact that the most aggressive procedure, the Hartmann, seems to give better results in the most fragile patients could suggest that controlling the source of the sepsis is still the most appropriate treatment.

On February 2014, the LADIeS trial prematurely closed the LOLA arm (Laparoscopic Lavage) for safety reasons. \(^5\) The definitive long-term results of the DILALA trial and the results of the ongoing