

ANSWERING REVIEWERS

February 2, 2014



Dear Editor,

Please find enclosed the edited manuscript in Word format (file name: 8780-review.docx).

Title: Is routine drainage necessary after pancreaticoduodenectomy?

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The manuscript has been improved according to the suggestions of reviewers:

1. Spelling errors have been corrected. References and format have been updated.
2. Four randomized controlled trials and 22 observational clinical studies were included in a meta-analysis and systematic review in 2013. Patients in pancreaticogastrostomy group had significantly lower incidence of pancreatic fistula, but higher intra-luminal hemorrhage (He T, 2013). Moreover, pancreatic fistula rates were significantly lower and less severe in two recent RCTs. There was no significant difference in the incidence of postoperative Haemorrhage (Figueras J, 2013; Topal B, 2013).
3. Though bacterial migration may also occur with closed drainage, close drainage was believed to reduce the risk of retrograde microbial contamination compared with open drainage. Sarr MG et al showed patients with close-suction drainage had a lower incidence of wound infection than patients with open drainage after cholecystectomy in 1987 (Sarr MG, 1987). However, Sánchez-Ortiz R et al found no significant difference in relevant complications between close-suction drainage group and open drainage group after partial nephrectomy (Sánchez-Ortiz R, 2004). There was no evidence to show that close drainage was better than open drainage after pancreaticoduodenectomy, but most surgeons chose close drainage in view of the possibility of increased risk of retrograde microbial contamination, just like in Topal B's study (Topal B, 2013).
4. Some surgeons believed that negative pressure might increase the risk of pancreatic fistula or lead to delayed hemorrhage at the time of drain removal. But there was no obvious evidence to prove the harm of closed-suction drainage. Most surgeons inserted closed-suction drainage for full draining after pancreaticoduodenectomy.
5. Collections were related to fistula of pancreaticojejunostomy anastomosis after pancreaticoduodenectomy (Robert B, 2013). Therefore, drainage tubes were often placed in the vicinity of the pancreatic anastomosis (Topal B, 2013). But some surgeons placed one drainage tube in the right subhepatic space, and others in the retroperitoneal area adjacent to the pancreatic anastomosis (Figueras J, 2013). It's still unknown which one is better. Shrikhande et al compared peri-operative outcomes between one drain group and two drains group after gastric and

pancreatic resections. They found two drains were no better than one drain (Shrikhande, 2013). But evidence is still lacked. One or more drains were inserted after pancreaticoduodenectomy, and two drains were inserted mostly.

6. The RCT should be a large multicentre trial. Cases should be enough and randomized completely. Moreover, there should be no differences in demographics, comorbidities, pancreatic duct size, pancreas texture, operative technique or other factors which could influence the incidence of pancreatic fistula between two groups. The postoperative management should also be consistent. And we have updated our paper for a new RCT by Van Buren G et al.

Thank you again for publishing our manuscript in the *World Journal of Gastroenterology*.

Sincerely yours,

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