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Comment on "Prophylactic Antibiotic Duration and Infectious Complications in Pancreatoduodenectomy Patients with Biliary Stents: Opportunity for De-Escalation"

Mu-xing Li, Hang-yan Wang, Zhao-lai Ma, Dian-rong Xiu, and Chun-hui Yuan

To the editors:

We read with great interest the article by Artem Boyev et al.¹ They investigated the prophylactic antibiotic duration and infectious complications in pancreatoduodenectomy (PD) patients with biliary stents. They found that among 310 PD patients with biliary stents, longer duration prophylactic antibiotics (>96 hours) were associated with similar composite infection rates to short (≤24 hours) and medium durations (>24 but ≤96 hours) but were used almost twice as often in high-risk patients. The authors proposed a risk-stratified prophylactic antibiotic treatment strategy in stented PD patients. After reading their article, we have some questions that we hope to communicate with the authors.

First, the indication of the prophylactic use of ertapenem in pancreatectomy patients was questioned. For over a decade, their hospital's standard antibiotic choice for pancreatectomy has been ertapenem. Meanwhile, according to previous studies, ^{2,3} routine ertapenem prophylactic therapy was mainly indicated in colorectal surgery but not in pancreatoduodenectomy.

Second, the indication of biliary decompression was not clarified in the study. The study initially included a total of 524 PD patients at a single institution from October 2016 to April 2022. Of them, 310 (57%) patients had preoperative biliary stents. Stented patients had a higher rate of incision infection than that of the non-stented patients. There were no differences in rates of sepsis, cholangitis, composite primary outcome, or secondary

From the Department of General Surgery, Peking University Third Hospital, Beijing, People's Republic of China.

The authors declare that they have nothing to disclose.

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Since the data was retrieved from public datasets and we followed the respective publishing guidelines, no ethics approval was needed.

Reprints: Chun-hui Yuan, MD, Dian-rong Xiu, MD, Mu-xing Li, MD, Department of General Surgery, Peking University Third Hospital., No. 49, North Garden Road, Haidian District, Beijing, 100191, People's Republic of China. E-mail: ychdoctor@163.com, xiudianrong@163.com, limuxing@hsc.pku.edu.cn.

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Published online 7 September 2023 DOI: 10.1097/AS9.0000000000000331 infectious outcomes between stented and non-stented groups. The detailed indications of biliary decompression, such as the level of serum bilirubin and severity of cholangitis, were not uniform among the medical institutions, which might introduce biases and interfere with the application of the study results.

In addition, the adjustment of the antibiotics according to the culture data and drug-sensitive test was not presented, which was open to criticism of the rational choice of antibiotics.

We raise these questions not to challenge Artem Boyev et al.'s research¹ but to have a friendly academic exchange with them. Also, we acknowledge Artem Boyev et al.¹ for their contribution to antibiotic therapy for PD patients with bile stents. Meanwhile, we are also very grateful to Annals of Surgery Open for giving us a platform to communicate.

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REFERENCES

- Boyev A, Arvide EM, Newhook TE, et al. Prophylactic antibiotic duration and infectious complications in pancreatoduodenectomy patients with biliary stents: opportunity for de-escalation [published online ahead of print July 3, 2023]. Ann Surg. doi: 10.1097/SLA.00000000000005982.
- Itani KM, Wilson SE, Awad SS, et al. Ertapenem versus cefotetan prophylaxis in elective colorectal surgery. N Engl J Med. 2006;355:2640–2651.
- Hendren S, Fritze D, Banerjee M, et al. Antibiotic choice is independently associated with risk of surgical site infection after colectomy: a population-based cohort study. *Ann Surg.* 2013;257:469–475.