Is a self-expandable metal stent better than a plastic stent in unresectable complex hilar cholangiocarcinoma with regard to the adequacy of drainage and survival of the patients?

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To the Editor:

We read with great interest the recent article by Sangchan et al.[1] The authors concluded that endoscopic biliary drainage with a self-expandable metal stent (SEMS) provides better adequacy of drainage and longer survival compared with the plastic stent (PS) in patients with unresectable complex hilar cholangiocarcinoma. It is an interesting study. Nevertheless, several issues seem worthy of comment.

First, as noted in this article, the difference in patient age distribution between the SEMS and PS groups was statistically significant ($P = .013$). It leads to an imbalance between treatment groups. However, ignoring the imbalances in continuous covariates causes the loss of power in randomized, controlled trials.[2] Moreover, an extreme degree of imbalance in baseline variables prognostic of response variables may lead to a misleadingly significant estimate of treatment effect. It is suggested that covariate adaptive allocation is often adopted in clinical trials to maintain the balance of baseline covariates.[3]

Second, full reporting of any deviations from random allocation and missing response is essential in the assessment of the necessity and appropriateness of an intention-to-treat approach, as emphasized in the CONSORT guidelines on the reporting of randomized, controlled trials.[4] Unfortunately, the authors did not report deviations from randomized allocation and missing response. Furthermore, the potential effect of missing response was not discussed, which is important for intention-to-treat analysis.[5]

Finally, radiotherapy is known to improve patient prognosis and the patency of uncovered metal stents in patients with locally advanced hilar cholangiocarcinoma.[6] The authors should consider this factor, which may influence the survival of patients in the SEMS group.

To summarize, this study suggests that the endoscopic SEMS was better than the PS in unresectable complex hilar cholangiocarcinoma with regard to adequacy of drainage and patient survival. Well-designed, unbiased prospective studies based on a larger sample size are still needed. We believe that our remarks will contribute to more accurate elaboration of the results presented by Sangchan et al.[1]

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Response:

We thank Dr Shao and colleagues for their comments on our study.[1] First, we agree that the association between the baseline characteristics and patient outcomes may cause the chance bias on a statistical test of outcome,[2] and covariate adaptive allocation may reduce the imbalance of baseline covariates.[3] In this study, we used blocked randomization (restricted randomization), and imbalance of baseline patient ages between the self-expandable metal stent (SEMS) group and the plastic stent (PS) group had occurred. However, we performed covariate adjusted analysis to correct for the imbalance in baseline characteristics or, more specifically, age. We used multiple logistic regression and Cox proportion hazards regression for successful drainage rate and patient survival, respectively. In both regression analyses, age was not the statistically significant explanatory variable. Besides, the presence or absence of age in the models did not significantly affect the magnitude and direction of the coefficient of stent type in the models; therefore, the imbalance in mean ages of the patients in the SEMS and PS groups should not alter the conclusions of the study.

Second, concerning the deviations from random allocation, Figure 1 in the study showed that only 1 patient in the PS group received SEMS after the first PS occlusion.[1] According to the protocol, some of patients with unsuccessful stent insertion and unsuccessful biliary stent drainage in both groups received PTBD as a rescue therapy, and the rest received palliative medication to control the symptoms of hilar cholangiocarcinoma. Regarding a missing response, there was no missing response on the part of survival analysis. However, in the comparison of successful drainage rate

between the PS and SEMS groups, missing response occurred in patients who died before the first appointment, and they were assigned to unsuccessful drainage in the analysis.

Finally, in this study, we focused on the efficacy of SEMS and PS in unresectable hilar cholangiocarcinoma; thus, the patients in both groups did not receive any treatment modalities that affected patient survival such as chemotherapy, brachytherapy, and external beam radiation.

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Use of a convex probe-endobronchial US endoscope in EUS of the rectum and FNA

To the Editor:

A 52-year-old white man was referred to the gastroenterology clinic for evaluation of a rectal mass felt on physical examination and confirmed on colonoscopic examination as an external compression. He had a history of locally invasive bladder cancer; bladder resection and ileal conduit were performed a year ago. Magnetic resonance imaging of the pelvis revealed a 1.8 × 2.1 × 2.9-cm mass posterolateral to the rectum on the right side, causing an indentation along the lateral wall of the rectum (Fig. 1). EUS with FNA was planned, but on the day of the procedure, the EUS processor had malfunctioned. An Olympus BF-UC-UC160F-OL8 EBUS endoscope (Olympus America Inc, Center Valley, PA) was used for rectal EUS. The US processor used was the EU-ME1. This revealed a 1.8-cm hypoechoic mass beside the posterior wall of the rectum (Fig. 2). FNA was performed with a 22-gauge needle. Pathology showed malignant cells, urothelial primary (Figs. 3 and 4). The convex probe-endobronchial US (CP-EBUS) endoscope is used mainly for mediastinal lymph

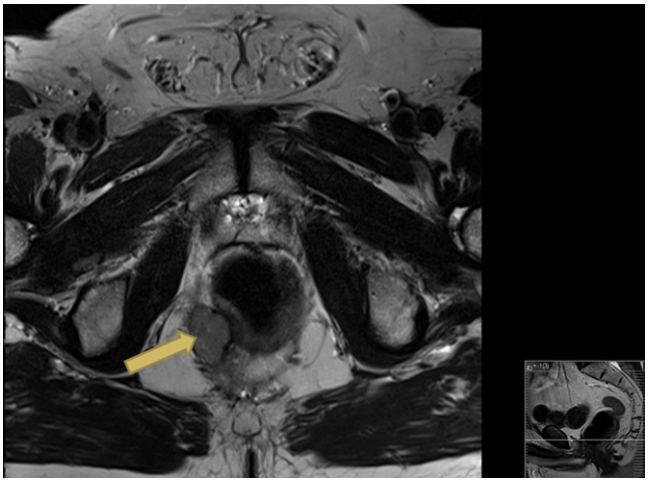

Figure 1. MRI pelvis. Arrow indicates perirectal mass.

Figure 2. EUS image of needle in mass.

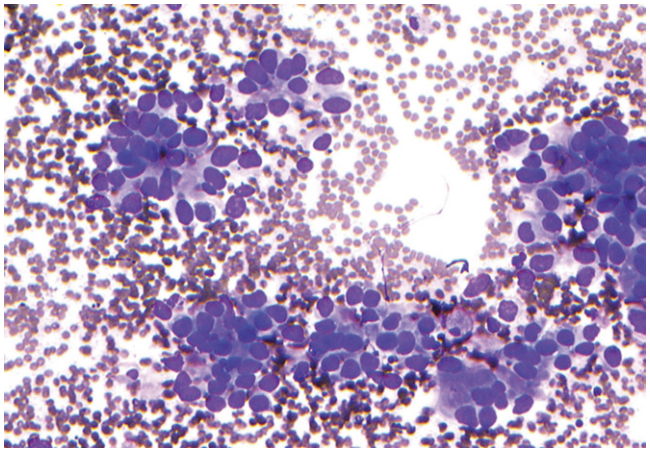

Figure 3. Rectum FNA: positive for malignant cells. Diff Quick smear: high-power image showing groups of malignant cells. The cells are large and have a high nucleus-to-cytoplasm ratio.