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Not sure which option to be better in-between risks of antiplatelet therapy for cirrhotic patients with recent coronary stents implantation undergoing elective portal hypertension surgery.

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Editorial

Surgeons accidently have to seek for help from cardiologists, anesthesiologists or even angiologists when and if they encounter cirrhotic patients with recent coronary stent implantation undergoing portal hypertension surgery (devascularization operation or shunt operation), because continuing antiplatelet may lead to potential risk of procedural hemorrhage. But if discontinuing antiplatelet therapy also brings cardiac risks (e.g. stent thrombosis, myocardial infarction, etc.) [1]. What is front-line clinicians' wisdom option to balance two risks. It's really a confusing issue to challenge surgeons' final decision-making.

As we all well known, China is a big country of cirrhotic patients mainly due to hepatitis B, about 9,323 patients receive portal hypertension surgery from 1961 to 1995, with up to 6.3% of these individuals died of either liver failure, hepatorenal syndrome or directly due to procedural bleeding [2,3].

The latest viewpoint points out those patients with recent coronary stent implantation who have undergone portal hypertension surgery are at highly risk of perioperative bleeding and that this risk is moderated by temporary discontinuing antiplatelet therapy and additional application of hemostatics. However, as a matter of fact, excessive use of hemostatic will exhaust huge number of platelet and induce portal venous thrombosis and stent thrombosis as well. While in practice discontinuing antiplatelet therapy or over depending on hemostatic couldn't reduce real risks of procedural bleeding but possibly accelerating rebleeding [1]. Obviously, acceptable risk is crucial key to success of definitive strategy. Also it's very important to analysis various risky factors, including stent type (Bare Metal Stent (BMS) *vs.* Drug-Elutinga Stent (DES)), operative urgency, early discontinuation of antiplatelet therapy, and time from coronary intervention and invasiveness of operation, etc. [1].

Based on these factors to build a primary evaluation system may minimise risks of massive surgery shortly after stent placement. Despite second- and third-generation DES have lower thrombogenic risk, and current American College of Cardiology (ACC) and American Heart Association (AHA) guidelines [4] recommend delaying noncardiac surgery until 30 d after BMS placement and ideally 6 months after DES placement unless clinical judgment indicates that the benefits exceed the risks for earlier surgery.

Although the situation in real practice is rare, for other noncardiac surgery, the common clinician’s cöundrum is interesting and the essential discussion here may be favarable to clear our minds.

In authors' previous more than 20 year experience, bridging-the temporary administration of an antithrombotic agent (e.g., intravenous heparin) to instead antiplatelet agents-was an alternative but flexible choice to respite up complexity in some tough dilemmas; however, authors' successful strategy was very limited due to restriction of small scale cases [5-7]. The best advantage of this strategy provides an enough opportunity to be timely adjusted, as a result, the safety of patients can be promised at the maximum possibility.

Theoretically, unified pattern is not easy to be obtained due to individuals' difference and complexity as well. Additional factors, including location of the stent, complexity of the percutaneous coronary intervention, acuity of presentation, reoperative site, and intricacy of the operation also should be considered [1].

Rather than continue to search resources or definitive answer in current literature, more importantly, beside 1 or more adequately powered randomized clinical trials, basic mind map are demanded. For example, to set up an individualized protocol from decision of multiple displacing team-a simple but effective way to resolve practical problem. Conducting an accessible risk would require substantial updated knowledge and executive skills, documented informed consent from patients and their families would be of relevance. In addition, real-time evaluation and adjustment would be helpful to indicate underlying risks from stent or surgical-related hemorrhage.

All in all, in my own view of points, the key to success is accurate assessment of in-between risks of continuous antiplatelet therapy *vs.* discontinuous antiplatelet therapy. If portal hypertension is threatening patients' lives, only surgery can save these special patients' lives, who care risks. Despite risks may be completely avoidable, but we can minimize these possibilities. According to our previous practical experience, perioperative bridge therapy and minimized portal hypertension using hemorrhage stain drugs will be helpful.

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