



Detailed association between hepatic dysfunction and tricuspid valve surgery

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Advanced tricuspid regurgitation is associated with systemic congestion leading to congestive end-organ dysfunction, including congestive hepatitis. Mortality and morbidity are high even after surgical tricuspid valve intervention when patients are referred later. However, the optimal timing for intervention in chronic tricuspid regurgitation remains unknown. Lim and colleagues demonstrated that the model for end-stage liver disease (MELD) scores significantly stratified clinical outcomes after surgical intervention for severe tricuspid regurgitation (1). Several concerns have been raised.

Hepatic congestion due to advanced tricuspid regurgitation leads to congestive hepatitis and hepatic dysfunction. Pre-operative management of systemic congestion is key to stabilizing hemodynamics and improving peri-operative clinical outcomes (2). Currently, a variety of diuretic or diuretic-related drugs can be available to treat heart failure. Some also have reno-protective effects, including vasopressin type 2 receptor antagonists, sodium-glucose cotransporter 2 inhibitors, and angiotensin receptor neprilysin inhibitors (3). The MELD scores, which the authors used in their study, include renal function, which is also compromised by systemic congestion and has a negative prognostic impact. How many patients were taking these medications before surgery?

It is not surprising that the presence of congestive end-organ dysfunction is associated with worse clinical outcomes despite surgery for severe tricuspid regurgitation, given its well-known negative prognostic impact. Thus, a high MELD score was associated with

worse postoperative clinical outcomes in their study (1). The next concern should be earlier biomarkers of end-organ dysfunction for optimal surgical timing before the development of end-organ dysfunction. How do the authors consider such markers? Some echocardiographic markers may also be promising for detecting early right ventricular dysfunction, including right ventricular global longitudinal strain (4).

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