Mesenteric Malperfusion Syndrome is the Game Changer in Acute Aortic Dissection

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PII: S2666-2736(24)00093-7
DOI: https://doi.org/10.1016/j.xjon.2024.03.014
Reference: XJON 1045

To appear in: JTCVS Open

Received Date: 18 March 2024
Revised Date: 22 March 2024
Accepted Date: 25 March 2024

Please cite this article as: Ak K, Mesenteric Malperfusion Syndrome is the Game Changer in Acute Aortic Dissection, JTCVS Open (2024), doi: https://doi.org/10.1016/j.xjon.2024.03.014.

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Mesenteric Malperfusion Syndrome is the Game Changer in Acute Aortic Dissection

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Conflict of Interest:

I have no conflicts of interest to disclose

Article Word Count:

500
I read with great interest the article by Brown et al (1). They stated that malperfusion syndrome (MPS) increases the risk for in-hospital mortality, and the number of malperfused vascular beds has critical importance in defining the risk of mortality after acute type A aortic dissection (ATAAD) repair. The authors must be congratulated for their successful outcome. I have several concerns about the study.

I concur with the authors' findings that rapid aortic repair successfully restores most patients' true lumen perfusion in MPS. Also, I support the outcome that having more than one malperfused vascular bed results in a worse prognosis after central repair. However, it has been shown that mesenteric MPS (mes-MPS) is a separate subgroup and some of these patients do not benefit from the aortic repair first policy, which was shown to be associated with over 80% early mortality (2). As the coronary, supra-aortic and iliofemoral vessels are in direct surgical view of the surgeon, it is technically easier to establish true lumen perfusion during central repair in case of MPS. On the contrary, the mesenteric circulation is rather a hidden zone and the surgeon has to take individualized decisions to improve the outcome of this subgroup of the patients. With this regard, the severity of mes-MPS gains priority in the decision-making process preoperatively (rapid versus delayed aortic repair). The authors reported that out of the 135 patients with MPS, 13 had visceral and 26 had renal MPS. They did not mention the details related to the severity of preoperative mes-MPS like biochemistry, lactate level, presence or absence of abdominal pain and ischemic colitis with bloody diarrhea. Putting the patients with a slightly elevated lactate level related to mild mes-MPS and those who had severe mes-MPS with bloody diarrhea and acidosis into the same basket could veil the impact of mes-MPS on the early outcome after aortic repair. Furthermore, deepening metabolic acidosis and hyperlactatemia related to severe mes-MPS
throughout the procedure would make the weaning off cardiopulmonary bypass almost impossible in most cases (3). Overall, the severity of mes-MPS should have been taken into consideration in the determination of either rapid aortic repair or mesenteric revascularization should be done initially in ATAAD.

References


Central Picture Legend: Photo of Dr. Ak