Patient specific and organ centric approach in malperfusion in Acute type A dissection.

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COI: None

Glossary of Abbreviations

Acute type A Aortic dissection (ATAAD)

malperfusion syndrome (MPS)

Central Picture Legend

One size does not fit all
We read with interest the article by Dr John A Brown and congratulate the authors for this elegant study. In this study the authors recommend aortic surgery first in Acute type A Aortic dissection (ATAAD) in the malperfusion syndrome (MPS). Malperfusion syndrome indicates end organ ischemia with dysfunction, necrosis, and organ failure.

We know the strategy to deal with MPS in ATAAD is unsettled.

The outcome of treatment for MPS is dependent on the specific organ involved and the timing of treatment for MPS. Intestinal Ischemia has the highest morbidity and mortality and the outcomes for other organs malperfusion are variable.

We believe during early days of surgery for ATAAD interventional procedures were in infancy hence many of the earlier studies did not have the opportunity to use them however recent studies are using it more frequently.

The most important requirement in any strategy is saving the life of a patient. We feel these complex set of patients must be first categorized as stable or unstable as the outcome will be different. This has been very well illustrated by BO Yang et al in their recent article. Though debatable, the possibility of aortic rupture leading to death of patient is less as compared to organ failure in ATAAD with MPS! The authors of the study hypothesizes: all patients with MPS will die but not all untreated patients with TAAD will have aortic rupture! The risk of dying from end organ failure even after the branch arterial obstruction was resolved with fenestration/stenting was≈7 times higher than the risk of aortic rupture. Sometimes it may prevent the futile attempt of aortic surgery in a patient whose visceral organ is damaged beyond salvage.
In a clinically stable patient, the intervention to correct the ischemia in MPS should be undertaken as it will have impact on outcome\(^2\).\(^3\).\(^4\). Other organs must be dealt with on their own merit, keeping in mind their significance and condition of the patient.

It is known that the cerebral\& renal malperfusion responds well to aortic surgery\(^2\) in most cases unless otherwise indicated\(^5\) in each clinical situation hence upfront aortic surgery should be the aim in these cases.

Coronary malperfusion needs to be addressed before or during operation depending on myocardial ischemia or complications of acute dissection are the dominant cause of instability of the patient. In a stable patient aortic surgery first may still be a better strategy.

Limb ischemia in malperfusion needs to be dealt with on its own merit depending on severity and its clinical significance in the given context.

In conclusion, we feel the treatment of MPS in the setting of ATAAD should be individualized and specific organ involvement should be a consideration while selecting the better strategy.

References:


One size does **NOT** fit all