INVITED COMMENTARY

Acute Mesenteric Ischaemia: The Importance of Knowing When, Where, and What To Do

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Acute mesenteric ischaemia (AMI) is wrongly thought to be a rare condition, especially in Western, elderly, atherosclerotic patients. However, what is unfortunately undeniable is its high mortality rate. For these reasons AMI remains a relevant topic that concerns emergency physicians, gastrointestinal and vascular surgeons, and, nowadays, interventional specialists.

The manuscript by Lemma et al.[1] focuses on the most important aspect of such an insidious pathology: the early diagnosis. The presence of a surgeon in the emergency room (ER) who can manage the patient first was independently associated with a shorter door to operation delay. In fact, the real problem is the lack of clinical suspicion, as clearly emerges from this study in which only 15.7% were correctly diagnosed initially in the non-surgical ER, despite the typical patient profile (aged over 75 years with history of cardiovascular disease and atrial fibrillation in 88% and 57% of cases respectively). In the surgical ER, AMI was the first working diagnosis in 50% of cases, showing the need for surgical training when facing this disease.

In an ideal world, every ER has a surgeon on hand. However, given the impending shortage of physicians because of economic and demographic factors, especially in rural and remote areas, a pragmatic solution is needed. As the authors clearly state in their conclusion, that solution is education. The recent European guidelines[2] recommend triphasic computed tomography angiography (CTA) to detect mesenteric arterial occlusion and for treatment, to consider revascularisation before bowel surgery. Endovascular techniques should be used as first line therapy because of their lower mortality and bowel resection rates compared with open surgery. The training of emergency physicians in the management of both surgical and medical patients is the cornerstone for improving care. They need to know the signs of AMI, diagnose it, and eventually hasten the patient's transfer to a vascular unit able to perform optimal care or to ultra specialised ones such as intestinal stroke centres.[3]

In the study by Lemma et al., there was a surprising 17% CTA rate in the first ER. Moreover, since the suspicion of AMI has not yet been made when computed tomography is requested, the latter is often incorrectly performed or read, so the rate of useful examinations was probably lower. For this reason 24.7% of included patients received isolated bowel resection and endovascular revascularisation was performed in only 8.6% of cases, resulting in 76.5% with irreversible bowel ischaemia and 18% exploratory laparotomy alone.

In conclusion, even if the main finding of this study was expected, the authors should be congratulated for having demonstrated it in a clear well selected population, using an original indirect indicator: the presence of a surgeon in the ER. Is this stating the obvious or evidence based medicine? If one believes that investing in physician and structural resources leads to improved care, then this kind of study is certainly the best way to start the discussion with our healthcare system providers.

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