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Doing the right thing for the right reason when treating ruptured abdominal aortic aneurysms in the COVID-19 era

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The recent COVID-19 pandemic has increased the work-load on health services worldwide, especially as it regards intensive care unit (ICU) beds availability. The need of spare ICU beds in favor of COVID-19 patients increases the danger of diminished treatment options for patients suffering from other diseases, especially where resources are limited.

Patients with ruptured abdominal aortic aneurysms (rAAA) are among those who may need ICU postoperatively. Open repair increases both the intraoperative complexity of treatment and the need for postoperative intensive care. On the other hand, endovascular treatment (EVAR) can be performed under local anesthesia, and a successful outcome is usually accompanied by short recovery and quick turnover.

We recently admitted a 78 year-old male with a rAAA. He presented with lumbar pain and hypotension. Due to the COVID-19 epidemic, there was no bed available in the ICU. The patient underwent an emergency endovascular repair under local anesthesia using a Lifetech Ankura^{TM} endograft. He received only 3 packs of red blood cells intraoperatively, and after the procedure he was transferred immediately in the Vascular Surgery ward. No ICU was needed. He had an uneventful recovery, with full mobilization and oral feeding from the 1st postoperative day and discharged on the 2nd postoperative day.

Although the type of treatment of rAAA is still debatable[1], EVAR is considered the first treatment option in an increasing number of Vascular Departments worldwide due to the reduced perioperative risk, and shorter postoperative in-hospital length of stay[2]. Definitely, the low number of suitability for endovascular repair[3] should be taken under consideration. The 2018 guidelines for the treatment of AAA

recommends EVAR over open repair in anatomically feasible patients with rAAA[2]. Performing the procedure under local anesthesia is an additional advantage. In a recent analysis of the Vascular Quality Initiative database, patients with rAAA who were treated with EVAR under local anesthesia compared to EVAR under general anesthesia had decreased intraoperative time, decreased number of intraoperative blood transfusions, decreased ICU length of stay and less postoperative pulmonary complications[4].

Today, when everyone in the health care system struggles with challenges posed by the coronavirus, every choice should be made with the concept in mind "doing the right thing for the right reason". Using EVAR, if anatomically possible, under local anesthesia rather than open repair or EVAR under general anesthesia seems to be the best solution. This way we can achieve both goals at the same time, i.e. treating patients in danger and saving valuable health care resources.

Conflicts of interest

Authors do not report any financial association or other conflict of interest

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