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Comment on "Intra-abdominal Hypertension and Abdominal Compartment Syndrome after Endovascular Repair of Ruptured Abdominal Aortic Aneurysm"

Dear Editor,

We read with interest the article from Djavani Gidlund and colleagues discussing the issue of abdominal compartment syndrome (ACS) after endovascular aneurysm repair (EVAR) for ruptured abdominal aortic aneurysm (RAAA).¹ We congratulate the authors for their results and are pleased to be cited in their text. We think however, that there is the need for some clarification.

The authors notice the difference in the rate of ACS and the need for decompression between their study (9% resp. 6%) and ours (20% resp. 20%).²

They discuss that possible reasons might be over-estimation of ACS or non-use of conservative therapy for ACS by our group.

In our study, when IAH was present without organ deterioration, conservative treatment was initiated in a manner similar to the method described by Djavani Gidlund and colleagues. Our indication for surgical decompression was based on an IAP >20 mm Hg or abdominal perfusion pressure (systemic mean pressure minus intra-abdominal pressure) of <50–60 mmHg and new development of organ dysfunction (i.e. deterioration, not complete failure). The algorithm of abdominal pressure management is clearly stated in our article and compares with the method and frequency used by Djavani and colleagues.

In contrast to the study of Djavani and colleagues, where the decision to perform EVAR or open repair was based on the judgment of the vascular surgeon on call, all our patients were treated by EVAR whenever possible. Accordingly, 50% ($n = 102$) of RAAAs were treated by EVAR as compared to 23% ($n = 29$) by Djavani and colleagues. Half of our EVAR patients were in profound shock, 33% with a systolic pressure <70 mm Hg and 17% with <50 mm Hg. Of the 20% that developed ACS, nearly 80% needed decompression laparotomy in the

operating theatre due to IAP up to 50 mm Hg. Only 6 patients needed to be compressed secondarily in the ICU due to refractory conservative treatment.

In conclusion, we are convinced that centers dealing with "EVAR-whenever-possible" protocols will encounter similar rates of ACS and that our algorithm² will help to prevent otherwise inevitable fatalities.

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