Introduction: The causal connection between hospital caseload and short-term mortality after complex surgery is controversial. Does a small minimum, say 10 cases yearly, suffice to secure good results or are substantially larger numbers necessary? Randomized studies are difficult, if not impossible, so these questions must be determined by observational studies which also can eliminate confounding.

We analysed intact abdominal aortic aneurysms (iAAA) from these aspects with patients from the Swedish vascular registry (Swedvasc). As endovascular abdominal aortic aneurysm repair (EVAR) was connected to caseload, this was also considered, simultaneously.

Method: Swedvasc comprised 4 868 iAAA 2013–2017 and age, sex, risk factors, and mortality were procured. Swedheart supplied information of previous cardiac insufficiency. Information of municipal homecare was available from the National Board of Health and Welfare and was coded as patient frailty. Mortality at 90-days was evaluated with Cox regression versus caseload of all AAA, proportion of EVAR, age, sex, heart disease, previous cardiac insufficiency, pulmonary disease, kidney disease, frailty, and urgency (no-urgency, unplanned-with-symptoms, emergency). Additionally, caseload and proportion of EVAR were plotted and analysed against unadjusted institutional mortality.

Result: Neither caseload, nor more EVAR reduced patient’s 90-day mortality (HR 1.04 P=0.650 and 1.06 P=0.739, respectively). Male sex decreased 90-day mortality (0.56 P=0.006) while heart disease, pulmonary disease, and urgency (either unplanned-with-symptoms or emergency) increased mortality (1.47 P=0.049, 1.66 P=0.010, 2.23 P=0.022, 2.45 P=0.002, respectively). Caseload or proportion of EVAR were not connected to individual hospital mortality.

Discussion: We failed to show any causal relationship between caseload or proportion of EVAR versus 90-day mortality.

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71253 - Neither larger hospital caseload nor more endovascular repair improves the 90-day mortality after repair for intact abdominal aortic aneurysms

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