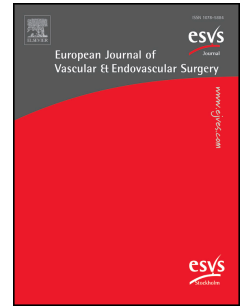


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Commentary to Perioperative Mortality and Survival after Repair of Abdominal Aortic Aneurysm in Advanced-age Patients: A National Study from the Norwegian Registry for Vascular Surgery Focused on Nonagenarians

Enrico Manuso, Philip W. Stather



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INVITED COMMENTARY

Aneurysm Surgery Beyond the How, Past the When and Onto the When Not to Operate

Enrico Manuso ^a, Philip W. Stather ^{a,b,*}

^a Department of Vascular Surgery, Norfolk and Norwich University Hospital NHS Foundation Trust, Norwich, UK

^b Norwich Medical School, University of East Anglia, Norwich, UK

* Corresponding author. Department of Vascular Surgery, Norfolk and Norwich University Hospital NHS Foundation Trust, Colney Lane, Norwich, NR4 7UY, UK.

E-mail address: Philip.Stather@nnuh.nhs.uk (P.W. Stather).

The dilemma regarding safety and outcomes following abdominal aortic aneurysm (AAA) surgery in nonagenarian patients, both for endovascular aneurysm repair (EVAR) and open surgical repair in either emergency or elective scenario, has been explored by Vikan *et al.*¹

Age is known to be the most significant risk factor for the presence of AAA. A prospective population based study proved that AAA incidence is moving to older ages: among males aged 65 – 74 years, the incidence of AAA was found to be 55 per 100 000 person-years, increasing to 112 per 100 000 person-years for males aged 75 – 85 years, and further increasing to 298 per 100 000 person-years for those older than 85 years.² As overall life expectancy increases, so does the proportion of nonagenarians presenting with AAA, but currently there is lack of evidence regarding AAA operative management for patients aged over 90 years.

European Society for Vascular Surgery (ESVS) guidelines on the management of AAA highlight the lack of significant benefit in treating patients with AAA when life expectancy is < 3 years with respect to either aneurysm-related or all-cause mortality.³ Validated tools for pre-operative risk assessment, such as SVS VQI and VSGNE, fail to provide guidance in nonagenarian patients.⁴

As found by Vikan *et al.*¹, compared with the general population, nonagenarians are significantly more likely to present with symptomatic or ruptured AAA, highlighting the need for guidance and validated risk assessment tools for elderly patients considered for urgent or emergency repair.

The key finding of the study is that following EVAR in asymptomatic nonagenarians, mortality at 30 days and 90 days was 2.5% and 7.5%, respectively. In addition, when looking at survival, the expected survival for people aged 90 – 94 years is 4.39 years, whereas in the operated cohort this reduced to 3.3 years, and even in those who survived the first 90 days the median survival was 4.2 years. Therefore, in the asymptomatic population over the age of 90 years, surgery has potentially caused more harm than good, especially when one considers that this cohort has likely been selected out as the fittest patients. Clearly there is a lack of randomised data in this cohort.

Clearly in patients with symptomatic or ruptured aneurysms EVAR can be considered in individual cases, and it continues to be the preferred treatment option in elderly patients, as open surgical repair in nonagenarians carries an extremely high risk of peri-operative mortality and should not be attempted. EVAR in the elective asymptomatic setting, however, requires significant contemplation, and this study goes some way to enabling an evidence based, honest discussion with the patient.

As the old adage goes – a good surgeon knows how to operate. A better surgeon knows when to operate. The best surgeon knows when not to operate. Just because one can treat does not mean that one should, especially when elective aortic surgery, at the end of the day, is a prophylactic operation. Choose wisely, counsel the patient, and first do no harm.

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