Since January 2020 Elsevier has created a COVID-19 resource centre with free information in English and Mandarin on the novel coronavirus COVID-19. The COVID-19 resource centre is hosted on Elsevier Connect, the company's public news and information website.

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The result from our pilot project have demonstrated the successful remote delivery of a vascular surgery curriculum to medical students and could prove to be a vital adjunct to traditional clerkships. Virtual technologies can enhance surgical education, are increasingly relevant, and deserve further investigation as supplementary teaching platforms.

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Massive drop in elective and urgent aortic procedures during the peak of the COVID-19 outbreak in Spanish multicenter analysis

The coronavirus disease-19 (COVID-19) pandemic has strongly impacted Spain and overwhelmed the healthcare system. Patients with vascular disease and COVID-19 infection are at risk for worse prognosis, given their numerous comorbidities and frequently fragile condition. Aortic-related conditions can be life threatening, especially when acute or complicated and thus, the current situation poses a challenge for providing proper care.

Thirty-four patients were treated for aortic pathology in eight Spanish academic vascular surgery departments during the pandemic between March 14 and May 4; 11 (32%) were urgent, 7 (21%) were semiurgent, and 16 (47%) were elective. Six (33%) of the 18 urgent or semiurgent patients tested positive for COVID-19; four died after repair, two owing to acute respiratory distress syndrome and two because of cardiac shock. Ten of 18 repairs (55%) were performed in nonvascular surgery operating rooms, 12 with nonvascular operating room nursing staff. A dramatic decrease (>50%) of urgent aortic surgery was encountered when compared within the same period for the three previous years.

COVID-19 is likely a risk factor for fatality after aortic repair, although this finding should be confirmed in larger studies. Another study of COVID-positive patients with asymptomatic disease requiring elective repair would also be useful.

The number of patients treated for aortic pathology during the COVID-19 outbreak shows a dramatic decrease, especially so in urgent repairs. This finding could be due to an inability to provide the usual path to care (all preexisting on-call transfer protocols have changed as the COVID-19 patients are prioritized), when patients are unable to reach the right hospital for treatment.

As a new stage of the COVID-19 emergency begins, the challenge will be the treatment of delayed cases. Aortic practice in the future will likely change. Endovascular techniques have proven to be useful and necessary during these times, because they offer rapid recovery while requiring few in-hospital resources. Durability, however, remains a concern, especially for complex aortic cases.
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There is no need to reinvent the wheel in assessment of ambulatory function in chronic limb threatening ischemia

We thank Khan et al.1 for highlighting the importance of functional assessment in patients with chronic limb threatening ischemia (CLTI). We agree that lower limb function and overall functional ability should be assessed in all patients with CLTI to guide shared decision-making. Their proposed method of assessment is straightforward, but is a new, currently unvalidated tool necessary? The Wound, Ischemia, foot Infection score is an objective assessment to stage CLTI, whereas Khan et al’s proposed adjunctive functional assessment is self-reported. Self-reported measures of function have significant variability when compared with objective performance measures, and objective measures more accurately reflect an individual’s physical function.2 A number of objective tools already exist to rapidly assess lower limb function, of which the short physical performance battery and gait speed are the best validated.3 Self-reported functional assessments can supplement objective measures, and a number of validated tools exist.4 For example, the Barthel Index is a holistic assessment of disability across a number of activities of daily living, including mobility and transfers.

Although frailty and function are not surrogates for each other, they are closely related, and most clinical frailty tools incorporate an assessment of function. The Edmonton Frail Scale includes the timed up and go test, and the Fried criteria include gait speed. The Clinical Frailty Scale (CFS) is arguably a measure of global function, and in a non-amputee, it is comparable to the tool proposed by Khan et al (grade 0 = CFS ≤5, grade 1 = CFS 6, grade 3 = CFS ≥7) and is associated with the long-term outcome in individuals with CLTI.4 The usefulness of Barthel Index, CFS, Edmonton Frail Scale, and Fried criteria has been reported in vascular surgery patients.5

Ambulation is only one aspect of overall function. An independent, wheelchair-bound amputee may have better overall function than an ambulant patient, who is dependent on others for activities of daily living. CLTI impairs ambulation, and those with severe disease may also gain the most functional benefit from revascularization. Therefore, ambulation should not be considered in isolation, and a global functional assessment as an adjunct to the Wound, Ischemia, foot Infection score would be preferable to ambulation alone.

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