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Journal of Vascular Surgery – November 2020

Audiovisual Summary

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Hi, I am Peter Gloviczki from Mayo Clinic, Editor-In-Chief of the *Journal of Vascular Surgery*. The COVID-19 pandemic continues to affect millions of people worldwide. As we go to the press today on September 5th, 2020, more than 26 million people in the world are infected with the virus and over 875,000 have died. In the United States, over 6.2 million people have tested positive and over 187,000 have died. The COVID-19 collection of the *JVS* journals continues to grow and includes a large number of publications on how COVID-19 has affected our patients and changed our practice. I am pleased to introduce to you the November issue of *JVS* and highlight four outstanding papers which are freely available for the next 2 months.

The CME article and Editors' Choice for this issue is entitled "Adverse cardiac events after vascular surgery are prevalent despite negative results of preoperative stress testing" and was written by Columbo and co-authors from Hanover, NH, and Boston, Massachusetts.¹ This retrospective review of the Vascular study Group of New England database investigated adverse cardiac events or death in 26,910 patients who underwent common vascular procedures. The study compared outcome of patients with negative tests to outcome of those who had no preoperative stress test. The use of stress test across institutions ranged from 37% to 80%. Adverse events were not significantly different between groups who underwent carotid endarterectomy, endovascular aneurysm repair, or infrainguinal bypass. Cardiac events or death, however, was significantly more frequent in patients with a negative test than in those who had no tests at all after major vascular operations such as a suprainguinal bypass or open aortic aneurysm repair. This suggests that patients with a negative preoperative stress test retain a substantial likelihood of perioperative cardiac events.

Our next highlighted article is "Lumbar drain complications in patients undergoing fenestrated or branched endovascular aortic aneurysm repair: Development of an institutional protocol for lumbar drain management," written by Dr Alqaim and colleagues from Worcester, Massachusetts.² This retrospective study included 100 fenestrated or branched endovascular aneurysm repair patients with an attempted lumbar drain placement. All drains were placed in awake patients, with fluoroscopic guidance in 28%. The technical success was 98% and 82% of the drains were left in place for 48 hours or longer. In 16%, the drains failed to maintain function and in 4% they fractured or were dislodged. Seven patients had leak around the drain. Four patients complained of postdural headache and 17 had bleeding complications. These were asymptomatic in 11 patients but three had intraventricular and another three had subarachnoid bleeding. So, the authors concluded that lumbar drains are frequently associated with nonfunctionality and complications but that long-term sequelae are rare.

The next article, by Swerdlow and co-authors from Boston, Massachusetts, New York, NY, and Philadelphia, Pennsylvania, is on "Stroke rate after endovascular aortic interventions in the Society for Vascular Surgery Vascular Quality Initiative."³ Stroke rate was 0.1% after endovascular aneurysm repair (EVAR), and aneurysm diameter greater than 6.5% and need for placement of a proximal extension cuff were predictors of stroke. Stroke rate was 0.9% after complex EVAR that included fenestrated and branched EVAR and chimney EVARs, and the use of arm for access was a strong predictor of stroke. The highest stroke rate was noted after thoracic EVAR, 2.9%, especially if the proximal landing zone extended into the aortic arch. Involvement of the left subclavian artery with any procedure was a strong predictor of stroke.

The final article highlighted this month is entitled "External validation of the Vascular Quality Initiative prediction model for survival in no-option chronic limb-threatening ischemia patients," by Verwer and colleagues, from Utrecht, The Netherlands, Worcester, Massachusetts, and San Francisco, California.⁴ The study validated 2-year mortality predictions based on outcome of a Vascular Quality Initiative (VQI) cohort of over 38,000 patients who underwent intervention for chronic limb-threatening ischemia (CLTI). The validation cohort included 150 CLTI patients who did not have an intervention. Two-year mortalities were similar; it was 21% in the validation cohort and 17% in the VQI prediction model. These results suggest that the VQI prediction model that is based on 12 preoperative covariates performed well, with a C statistic of 0.86 that is the mark of a good model for predicting 2-year mortality risk in a no revascularization option CLTI population.

These were just a few of the many excellent papers we published in the November issue of the *JVS*, hope you will enjoy reading them. Please follow us on social media and remember in this time of the pandemic to wear mask, wash your hands and enforce social distancing to protect others and yourself from the corona virus. Thank you for watching and see you next time for the highlights of the December issue of the *Journal of Vascular Surgery*. Appendix.

The video accompanying this article may be found online at www.jvascsurg.org.

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