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.

vascular interventions and external iliac and superficial femoral stenosis were associated with a greater risk of amputation. Multivariate logistic regression showed that external iliac artery stenosis/occlusion (odds ratio, 1.59; $P = .046$) remained a significant predictor for a final level of amputation above the knee (Table I). Univariate analysis showed age, stenosis/occlusion of the iliac vessels, smoking, and dialysis dependence were associated with decreased median survival. Age (hazard ratio, 1.042; $P = .008$) and dialysis dependence (odds ratio, 4.33; $P = .002$) remained significant predictors on Cox regression analysis, with patients with external iliac stenosis or occlusion showing a strong trend toward diminished survival (hazard ratio, 1.41; $P = .054$; Fig).

Conclusions: External iliac disease is associated with higher final levels of amputation and might also predict for lower long-term survival. For patients who are undergoing transtibial amputations, inflow lesions should be addressed concomitantly or before the procedure.

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IP157.

Acute Aortoiliac Arterial Thrombosis in Patients With the Novel Coronavirus Disease 2019: A Case Series and Systematic Review of the Literature

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Objective: Venous thrombosis has been widely described in the setting of severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) infection. However, arterial thrombosis has rarely been reported. We assessed the incidence, risk factors, interventions, and outcomes of acute aortoiliac arterial thrombosis in patients with active SARS-CoV-2 infection.

Methods: We present the cases of seven SARS-CoV-2–positive patients from our institution who had acutely developed thrombi in the aortoiliac arterial system (July 2020 to January 2021). A systematic review of the literature on aortoiliac arterial thrombosis in patients with SARS-CoV-2 infection in accordance with the Preferred Reporting Items for Systematic Reviews and Meta-Analyses guidelines was also performed. The available data from all reported cases and at our institution were analyzed.

Results: A total of 30 reported studies and journal correspondence, including 52 patients, were reviewed and analyzed, in addition to our institution's seven cases. In total, 59 SARS-CoV-2–positive patients were found to have acute aortoiliac thrombosis. The abdominal aorta was the most frequent location for the development of a thrombus (Table I). The baseline demographics and medical comorbidities were not significantly different between the symptomatic and asymptomatic cohorts. Of the patients, 71% were symptomatic (lower limb ischemia, 75.0%; renal infarction, 20.0%; stroke, 12.5%; mesenteric ischemia, 10.0%). All patients with thrombus involving the ascending aorta, aortic bifurcation, or iliac artery had developed thromboembolic or ischemic complications. All the patients received systemic anticoagulation (Table II), and 53% of all patients were treated medically. Of the asymptomatic patients, 94% were treated medically. One asymptomatic patient underwent endovascular aspiration of a mobile thrombus. Three patients (23.1%) in the asymptomatic cohort had died of hypoxic respiratory failure. Fourteen patients (36.8%) had died in the symptomatic cohort. The in-hospital mortality rate was 33.3% overall and 43.8% for patients with thrombi involving more than one aortoiliac segment.

Conclusions: The presence of thrombi in the aortoiliac arterial system appears to be a poor prognostic indicator for patients with active SARS-CoV-2 infection. Medical treatment of patients with asymptomatic aortoiliac thrombi can be considered. The presence of thrombi involving the ascending aorta, aortic bifurcation, or iliac artery could warrant consideration for operative intervention owing to the risk of thromboembolic or ischemic complications. Further study is needed to fully delineate the risk factors, optimal treatment, and outcomes of arterial thrombosis in the setting of SARS-CoV-2 infection.

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IP159.

Effect of the Coronavirus Disease 2019 Pandemic on Vascular Surgery Admissions at a Major Academic Center in New York City

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Table I. Aortoiliac arterial territories affected by acute thrombosis in the setting of SARS-CoV-2 infection

Variable	All patients (n = 59)	Asymptomatic patients (n = 16)	Symptomatic patients (n = 40)	*P* value
Ascending aortic thrombus	5 (8.5)	0 (0.0)	5 (12.5)	.138
Aortic arch thrombus	12 (20.3)	7 (43.8)	4 (10.0)	.004
Descending aortic thrombus	17 (28.8)	10 (62.5)	7 (17.5)	.001
Abdominal aortic thrombus	27 (45.8)	2 (12.5)	23 (57.5)	.002
Aortic bifurcation/iliac artery thrombus	20 (33.9)	0 (0.0)	20 (50.0)	.000
Concomitant infrainguinal arterial thrombosis	16 (27.1)	0 (0.0)	16 (40.0)	.003
Concomitant infrapopliteal arterial thrombosis	13 (22.0)	0 (0.0)	13 (32.5)	.009

SARS-CoV-2, Severe acute respiratory syndrome coronavirus 2.
Data presented as number (%).

Table II. Management strategies used and in-hospital mortality for SARS-CoV-2–positive patients with acute thrombosis of the aorta and/or iliac arteries

Variable	All patients	Valid	Asymptomatic patients	Valid	Symptomatic patients	Valid	*P* value
Managed medically	29 (52.7)	55	15 (93.8)	16	14 (35.9)	39	.000
Systemic anticoagulation	43 (100)	43	14 (100)	14	29 (100)	29	NA
Surgery required	24 (42.9)	56	1 (6.3)	16	23 (57.5)	40	.000
Open surgery	22 (91.7)	24	0 (0.0)	1	22 (95.7)	23	NA
Endovascular therapy	5 (20.8)	24	1 (100.0)	1	4 (17.4)	23	NA
Thrombolytic agents	6 (10.9)	55	1 (6.3)	16	5 (12.8)	39	.478
In-hospital mortality	17 (33.3)	51	3 (23.1)	13	14 (36.8)	38	.363

SARS-CoV-2, Severe acute respiratory syndrome coronavirus 2.
Data presented as number (%).

Objective: Numerous changes to the healthcare system have occurred because of the coronavirus disease 2019 (COVID-19) pandemic, including the temporary suspension of elective procedures, reduction in outpatient clinic visits, and increased reluctance of patients to seek medical care. We examined the effect of the COVID-19 pandemic on vascular surgery admission volumes at a single large tertiary and quaternary care center in New York City.

Methods: The data for all patient admissions to the vascular surgery service at the Mount Sinai hospital during the past 5 years was collected. The COVID-19 era was defined as the period from March 23, 2020 to December 31, 2020. The admissions from the representative period from each of the preceding 4 years were then tabulated for comparison. The number of vascular admissions and the proportion of admissions originating in the emergency room (ER) in the COVID-19 era were compared with those from the representative 9-month period during previous years using a single sample *t* test.

Results: During the COVID-19 era, 968 patients were admitted to the vascular surgery service compared with an average of 954 patients for the same period in the preceding 4 years ($P = .75$; Fig 1). During the COVID-19 period, 46.4% of the patients were admitted from the ER compared with an average of 45.5% of the patients during the preceding 4 years ($P = .66$). During the initial period of halted elective surgery from March 23, 2020 to June 7, 2020, 160 patients were admitted, compared with an average of 266 patients admitted during the same period in the preceding 4 years ($P < .05$; Fig 2); 60% of the patients were admitted through the ER, significantly greater than in previous years ($P < .05$).

Conclusions: During the period of halted elective surgery, a significant decrease occurred in the number of vascular admissions and a significant increase occurred in the proportion of admissions originating in the ER. However, the number of vascular surgery admissions in the 9-month COVID-19 era and proportion of admissions from the ER were not significantly different from those in previous years. Our findings serve to affirm the urgent need to treat vascular disease on a nonelective basis, especially at a quaternary referral center. Our findings also highlight the integral role of vascular surgery in the healthcare system, as evidenced by the largely recovered admission numbers in the COVID-19 era.

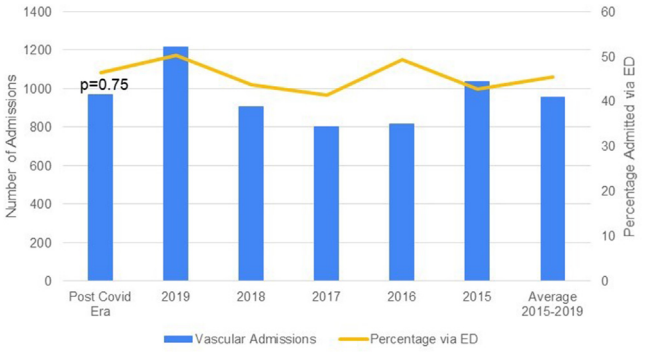

Fig 1. Vascular surgery admissions in the post–coronavirus disease 2019 (COVID-19) era compared with representative periods in previous years.

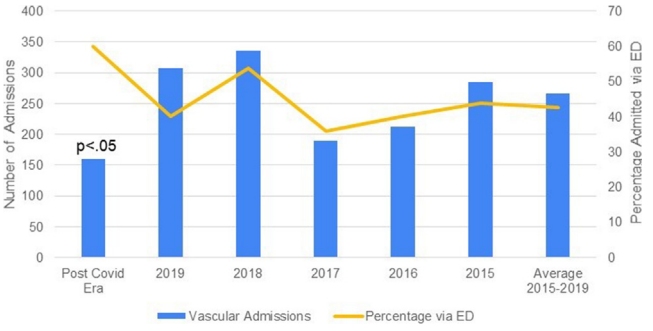

Fig 2. Vascular surgery admissions during the elective surgery moratorium compared with representative periods in previous years.

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IP161.

Case Logging Habits of Integrated Vascular Surgery Residents

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Objective: Current research has suggested a significant discrepancy in integrated vascular resident (IVR) vs vascular fellow case numbers by the completion of training. Our objective was to understand how IVRs log cases and whether they log cases correctly, assess whether IVRs receive any formal training on case logging, and gauge their understanding of IVR graduation requirements.

Methods: We performed an Association of Program Directors in Vascular Surgery–approved survey study. The survey was sent to all current IVRs nationwide and to trainees who graduated in July 2020. The demographic variables and training program data were collected, in addition to assessing trainee knowledge of graduation requirements. The trainees were then given common case scenarios and asked how they would log the case.

Results: A total of 474 unique individuals were identified using the provided Association of Program Directors in Vascular Surgery program roster for the 2019 to 2020 and 2020 to 2021 academic years. Of the 474 individuals for whom e-mail addresses were provided, 61 were invalid or no longer working. Of the remaining 413 functional addresses, 134 individuals responded, for a response rate of 32%. The demographic and training data are summarized in Table I. Only one quarter of trainees had logged 100% of cases performed, with the major cited reason for not logging cases being "level of involvement." Additionally, 62% of the trainees had ever received formal instruction on how to log cases

Table I. Demographic and training program data

Variable	No. (%)
Total respondents	137 (32)
Female sex	50 (38)
PGY level	
PGY 1	18 (13)
PGY 2	15 (11)
PGY 3	20 (15)
PGY 4	29 (22)
PGY 5	20 (15)
Graduate	20 (15)
Research year 1	7 (5)
Research year 2	5 (4)
Program location	
New England	19 (15)
Mid Atlantic	35 (27)
South	17 (13)
Midwest	39 (29)
Southwest	8 (6)
West	13 (10)
Training programs with vascular fellowship	102 (77)
Dedicated research time requirement	50 (39)
Between PGY 2 and 3	12 (24)
Between PGY 3 and 4	38 (76)

PGY, Postgraduate year.