Substantial Decrease in Peripheral Artery Testing During COVID-19 But No Change in the Number Diagnosed with Critical Stenotic Disease

Objective

To determine the impact of COVID-19 on peripheral artery testing in patients who needed testing.

Practice Points

1. About 12% of adults in NL have peripheral artery disease (PAD) but usually these patients do not need a Peripheral Artery (PA) test or revascularization procedure.

2. PA testing is indicated in those who could potentially benefit from a revascularization procedure who have rest pain/severe claudication or tissue loss with signs of ischemia. Sometimes testing may be helpful in making a diagnosis of PAD in patients with symptoms consistent with ischemia, even though a procedure is not contemplated.

3. Testing is not indicated in patients with mild claudication, atypical symptoms like leg cramps, paraesthesiae, numbness, or Raynaud's phenomenon, or signs such as digital cyanosis, or absent peripheral pulses without symptoms of PAD. Screening for PAD in the general population is not recommended.

4. COVID-19 induced a reduction in hospital services starting 16 Mar 2020, including a reduction in PAD testing.

Methods

1. Data on PAD testing was obtained from St. Clare's Vascular Laboratory from 2 Jan 2020 to 19 May 2020. The period 2 Jan to Mar 15 (pre-COVID-19: 52 working days) was compared to 16 Mar to 19 May (during COVID-19: 44 working days) for indication and rate of diagnosis of PAD. A correction factor of 0.85 was made for pre-COVID-19 era, in which 182 had testing, when comparing numbers during the epidemic, when 46 patients had testing.

Results

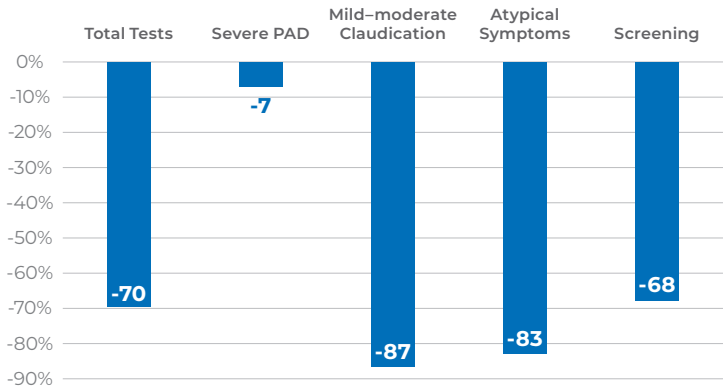

Figure 1. Percent Reduction in Volume of Testing During COVID-19 Compared to Pre-COVID-19 (Using the Correction Factor of 0.85) by Indication

- Substantial reduction in testing occurred in patients without a good indication for testing, and little change occurred in the volume of tests in those with manifestations consistent with severe PAD.

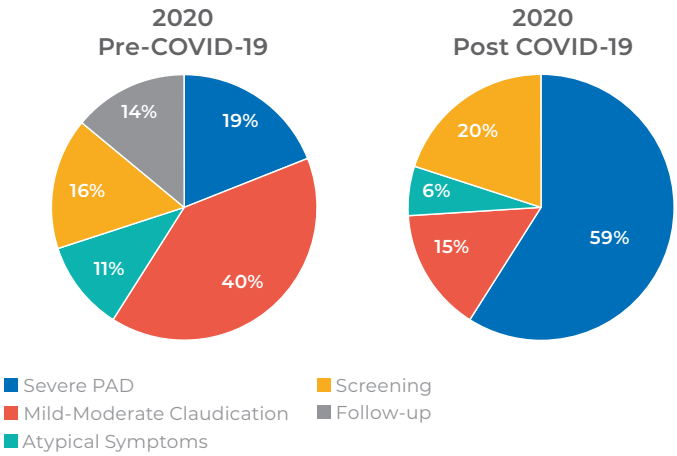

Figure 2. Proportion of PAD Tests by Indication Pre and During COVID-19

- During COVID-19, the appropriateness of testing improved enormously particularly as the proportion with severe PAD increased from 19% to 59%.

- During COVID-19, no tests were undertaken as follow-up for those who had previous revascularization, as follow-up clinics had been cancelled.

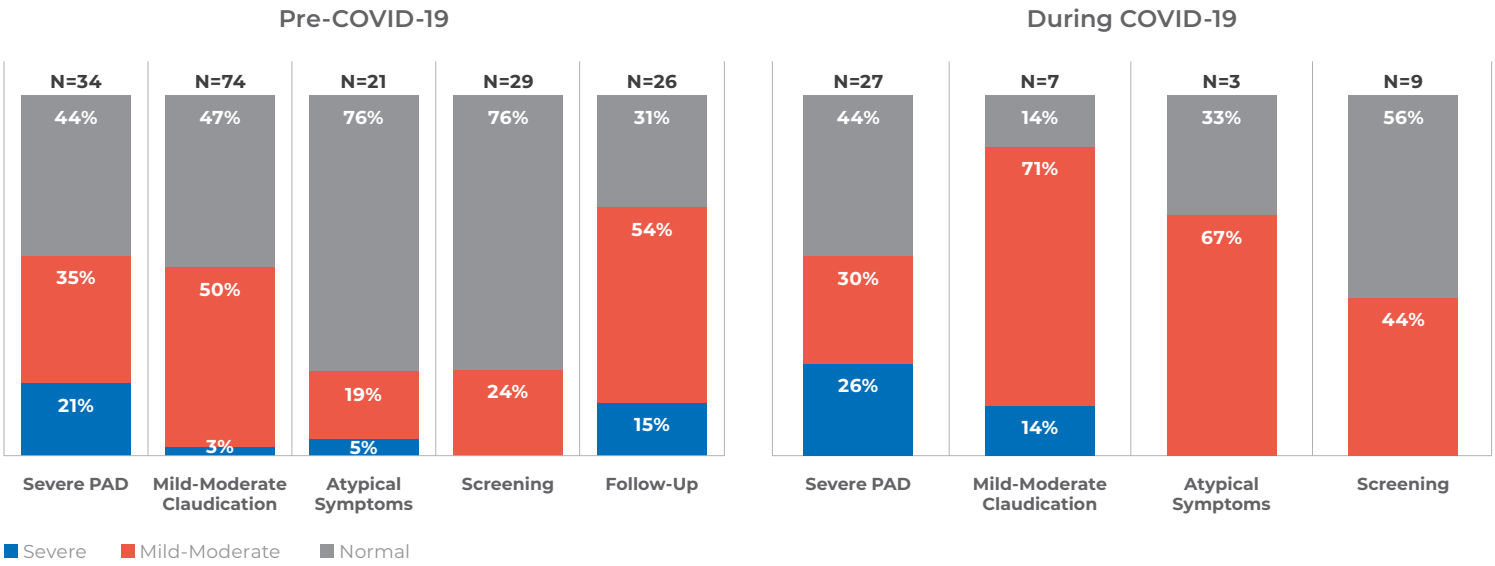

Figure 3. Diagnosis of PAD on Testing by Indication Pre and During COVID-19

- The number of patients who had manifestations of severe PAD diagnosed with critical stenotic PAD was identical pre and during COVID-19 (n=7).

Conclusions

1. There was substantial reduction in PAD testing during COVID-19 but this occurred in the groups without good indications for testing.

2. The number of patients with strong indications did not change nor did the number/proportion diagnosed with critical stenotic disease.