Treatment and Patient Characteristics Affecting the Health Status of Patients with Peripheral Arterial Disease—The PORTRAIT Study

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What was the research about?
About 8.5 million Americans ages 40 or older live with peripheral arterial disease, or PAD. This health problem partially or completely blocks blood vessels, usually those that deliver needed oxygen to the legs. PAD often causes calf pain during walking.

Treatment for PAD aims to improve blood flow. The American Heart Association recommends noninvasive treatments, including exercise therapy, aids to help patients quit smoking, and certain medicines. Antiplatelet medicines prevent blood clots. Statin medicines lower cholesterol levels. Invasive procedures, such as stents or surgery to open or bypass blocked vessels, can also treat PAD.

Over a year, the research team carried out three separate comparisons of treatment approaches:

- Patients receiving invasive treatment after their first clinic visit versus patients receiving only noninvasive treatment
- Patients receiving both antiplatelet and statin medicines versus patients receiving only one or none of these medicines
- Patients receiving all four American Heart Association recommended treatments—antiplatelet and statin medicines, exercise therapy, and aids to stop smoking—versus patients not receiving all four treatments

The research team asked patients with new or worsening PAD-related leg problems questions about their health status, including PAD symptoms, ability to function, quality of life, and satisfaction with care.

What were the results?

**Invasive treatment.** At the beginning of the study, health status was worse in patients who received invasive treatment than in patients who received noninvasive treatment. But health status in both groups of patients ended up being similar 3, 6, and 12 months after the first visit.

**Antiplatelet and statin medicines.** At the first visit and at three and six months, health status was better in patients taking both medicines compared with patients who weren't taking both. At 12 months, health status was similar in the two groups.

**Antiplatelet and statin medicines, exercise therapy, and aids to stop smoking.** At the first visit, health status was similar in patients who received all four treatments and those who didn't. At three months, health status was better in people receiving all four treatments. Then at 6 and 12 months, health status in the two groups was similar.
**Patient characteristics.** At all visits, men had better health status than women. White patients had better health status than patients who were races other than white.

**Who was in the study?**
The study included 797 adults with PAD of the legs. Of these patients, 42 percent were women, and 28 percent were races other than white. All patients had new or worsening symptoms. The patients received care at 10 clinics focused on PAD. The clinics were in big cities in seven states.

**What did the research team do?**
The research team selected patients at their first visit to a PAD clinic. The patients completed a survey about their health status related to PAD at the first visit and again after 3, 6, and 12 months. The research team also collected information about the patients, such as their sex and race, and about treatments received during the study.

**What were the limits of the study?**
The study included only patients with PAD severe enough to be referred to a specialized clinic. These patients received care in only 10 clinics in seven cities. The results may be different for people who have less severe symptoms or who live in other places.

Only about 5 percent of patients received all four recommended treatments. Patients who received all four treatments may differ from patients who didn't. Results may be different if more patients had received all four treatments. Future research could examine why not many patients received all four recommended treatments.

**How can people use the results?**
Health status improved in patients, no matter which treatment patients received. Patients and doctors may use these results to inform discussions about treatments for PAD.

*To learn more about this project, visit pcori.org/Smolderen070.*