Table. SNP associations with AAA

Chr	*SNP marker*	*Position*	*AAA MAF*	*Control MAF*	χ^2	P *value*	*Odds ratio*	*95% Confidence interval*	*Gene region*
3	RS7635818	74866166	0.4416	0.4437	0.010	0.9187	0.9913	0.839-1.172	intergenic
3	RS9876789	74628570	0.0565	0.0824	5.807	0.01596	0.6671	0.479-0.929	CNTN3 intron 2
3	RS6549604	74628467	0.0671	0.0915	4.545	0.03301	0.7147	0.524-0.974	CNTN3 intron 2
3	RS4076052	74623970	0.0212	0.0353	4.044	0.04434	0.5926	0.354-0.992	CNTN3 intron 2

AAA, Abdominal aortic aneurysm; *Chr,* chromosome; *MAF,* minor allele frequency; *SNP,* single nucleotide polymorphism.
A total of 567 AAA cases and 552 elderly vascular disease (including AAA) free controls were compared.

large,
geographically distinct, Caucasian population, the possibility of population stratification in the Elmore et al study and low statistical significance in the context of genome wide multiple testing suggest that this region should not be considered as an AAA locus at this time.

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Reply

We thank the investigators for their interest in our paper,[1] and would like to make several points regarding their observations. First, their sample size is underpowered for a replication study of the reported association. For an association with an odds ratio of 1.3 and minor allele frequency of 0.4, the statistical power is 0.45 (based on an allelic genetic model) at $\alpha = 0.05$.[2] Therefore, the failure to replicate the association is not conclusive. Second, the investigators do report a statistically significant association with single nucleotide polymorphisms (SNP) in intron 2 of the *CNTN3* gene. This supports our working hypothesis that a functional variant in this region influences the phenotype. The differences in specific genetic variants that are statistically associated with the disease (and presumably a common functional genetic variant) could reflect different haplotype structures in the study populations. Third, a difference in haplotype structure is further suggested by our failure to replicate in our study population their previously reported association of SNP rs5186 in the *AGTR1* gene with abdominal aortic aneurysm (AAA)[3] (Table). Assuming the reported odds ratio of 1.6,[3] our sample size has 0.98 power to detect an association (allelic genetic model, $\alpha = 0.05$). Finally, these considerations highlight some of the challenges of discovering and validating the association of common genetic variants with complex diseases. We are open to working collaboratively with other investigators to overcome these challenges in addressing important research questions.

Table. SNP rs5186 Association with AAA*

MAF case	*MAF control*	χ^2 P *value*	*Odds ratio*	*95% Confidence interval*
0.32	0.29	0.20	1.1	0.95-1.3

AAA, Abdominal aortic aneurysm; *MAF,* minor allele frequency; *SNP,* single nucleotide polymorphism.
*704 AAA cases and 800 controls from the Geisinger Clinic population.

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Regarding "Incorporating outpatient venous procedures into a vascular surgery practice"

The American Board of Phlebology (ABPh) agrees with many of the points raised in the article by Shortell and Markovic.[1] There has been tremendous interest by physicians from a variety of specialty backgrounds as a result of major new concepts and significant innovations in the diagnosis and treatment of common vein disorders. Duplex imaging has been critical to many of these advances. Many vein procedures can now be done in an office-based setting by using percutaneous or simple surgical procedures and thus are being performed by primary care physicians, gynecologists, general surgeons, interventional radiologists, dermatologists, and physicians from other specialty backgrounds. Physicians and surgeons from a variety of specialties have contributed to these innovations.[2-5]

The mission of the ABPh, an independent nonprofit organization, is to improve the base of knowledge and experience of medical practitioners and thus the care of patients related to venous

disorders through rigorous testing, reliable certification, and improved educational standards.

In accordance with this mandate, the ABPh Certification Examination was developed using the *Standards for Educational and Psychological Testing,* which establishes procedures for examination development to ensure valid interpretation of score results. *Standards* is published and adopted by the American Educational Research Association, the American Psychological Association, and the National Council on Measurement in Education.

To become board certified, a phlebologist must:

- meet professional standing requirements;
- complete the requisite training or experience qualifications;
- meet the continuing medical education requisites; and
- pass a certification examination.

The ABPh was created in response to the concerns that there is no residency devoted to training physicians in the field of phlebology, that the level of training in venous procedures is very diverse across existing training programs, including vascular surgery,[6] and that many physicians in those specialties have had little or no training in phlebology during their residency or fellowship training.

The ABPh is designed to foster specialized care for patients with venous disease by providing a certification that rigorously evaluates whether a physician has the necessary knowledge, skills, and abilities to provide high-quality care for venous disorders. It should be noted that, at this time, the ABPh is the only certification that requires its Diplomates to demonstrate both knowledge and experience specifically in the area of venous diseases, including venous duplex ultrasound imaging. It is important to correct one error in the Shortell and Markovic article. The ABPh certification process is based on American Board of Medical Specialties (ABMS) criteria; however, the ABPh is not currently one of the 24 member boards recognized by the ABMS.

As of July 2009, the ABPh has 412 Diplomates, with specialty backgrounds including vascular surgery, general surgery, interventional radiology, family practice, internal medicine, vascular medicine, dermatology, plastic surgery, and gynecology. The interest and expertise of the physician and the quality of the care given to the patient are far more important factors than the specialty originally chosen by the practitioner.

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