Published in final edited form as:

Am J Obstet Gynecol. 2008 December 1; 199(6): e12–e13. doi:10.1016/j.ajog.2008.06.023.

Reply to Letter to Editor E08-5108A

Elizabeth A. Stewart, MD,
Mayo Clinic College of Medicine

Jingmai Zhang, MS, and
Boston University School of Medicine

Karen T Cuenco, PhD
Boston University School of Medicine

We appreciate the reader's insightful comments regarding the report from our Finding Genes for Fibroid Study and welcome discussion and validation of our severity algorithm in diverse populations(1). Unfortunately, the uterine leiomyoma research community lacks many tools needed for research, and leiomyoma consensus conferences have not addressed this issue. Thus, we established the algorithm at the outset of the study and acknowledge that refinements in the algorithm may occur with further research.

Each of the elements of the algorithm can have influences other than disease severity. For example, although early onset of disease is typically considered a good indicator of disease severity and a marker of genetic contribution to disease, for leiomyomas, access to diagnostic services such as ultrasound could play a role. However, the literature supports that black women develop fibroids at earlier ages, have more severe disease at the time of hysterectomy and have higher rates of myomectomy. Thus, we interpret a hysterectomy to be reflective of disease severity more than access to care, and omitting this criterion would underestimate disease severity. Nonetheless, we reanalyzed our data omitting hysterectomy to address this question (see data in Addition to Table 5 and Revised Table 4). The basic relationship between severity and ethnicity remains even after excluding hysterectomy as a criterion for severity. However, the odds ratio and confidence intervals estimated from the remaining more homogeneous myoma sample seem to be more sensitive to the effects of confounding variables.

While health disparities often relate to issues of access, for leiomyomas there is ample data that disease severity is clearly worse for black women. For this reason we are committed to pursuing our genome-wide scan with a racially diverse cohort and hope in the near future to discover specific genes contributing to this disease in women.

References

1. Huyck KL, Panhuysen CI, Cuenco KT, Zhang J, Goldhammer H, Jones ES, Somasundaram P, Lynch AM, Harlow BL, Lee H, Stewart EA, Morton CC. The impact of race as a risk factor for symptom severity and age at diagnosis of uterine leiomyomata among affected sisters. *Am J Obstet Gynecol* 2008;198:168.e1–9. [PubMed: 18226615]

Publisher's Disclaimer: This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting proof before it is published in its final citable form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.

Addition to Table 5

Logistic regression analysis of severity of UL symptoms

			Odds Ratio	95% confidence interval	p- value
Model 4 (n = 277)	Predictor	Black race	5.10	2.19 – 11.89	0.0002
	Confounder	Young age at menarch	0.73	0.59 – 0.90	0.0038
		No pregnancies	1.77	1.00 – 3.12	0.0491

Revised Table 4 (based on Model 4)

	Black (n=146)	White (n=424)	
Severe	129 (88.4%)	263 (62%)	
Not Severe	17 (11.6%)	161 (38%)	P<0.0001