and practices and (2) the outcome concerns in women and small patients.

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Reply to the Editor:

We thank Dr Habib and colleagues for their interest in this topic. The issue of whether gender, size, or gender in combination with size can explain the worse early mortality after coronary artery bypass graft (CABG) surgery has been an ongoing debate. There still is no comprehensive evidence of what aspects of gender contribute to this increased early mortality risk; however, a strong association to body size has been previously described.¹ It also has been shown that the gender effect of worse early outcome rates of death and low output syn-

drome remain despite adjustment for body size, even when more detailed clinical data are available.¹ Size is important, but it is not the only factor that distinguishes men from women, and this certainly deserves more research. A recent article by Koch and coworkers² used propensity analysis to match women and men using 68 covariates. As seen in this study, only 26% of women from their entire cohort were matched, which certainly limited the generalizability of the study findings for the entire population of women undergoing CABG surgery. Regardless, likely there are factors other than size for women that lead to worse early outcomes after CABG surgery. There is some evidence to show that off-pump coronary artery bypass surgery might reduce adverse outcomes for women.³ Unfortunately, off-pump coronary artery bypass trials will always have a minority of women and thus not be powered to understand the gender effect fully. Perhaps studies understanding the differential gender response to cardiopulmonary bypass and myocardial ischemia are required to more fully understand why there is a gender difference. Retrospective studies, even with detailed clinical data, will never be sufficient to conclusively identify the cause behind this observation, and size only explains part of the gender story. We can all agree that it is time for the research community to look beyond simple gender differences and work in a concerted manner to try and identify the biologic factors that contribute to gender differences in CABG surgery outcomes.

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Something to expect, diagnose, and treat early

To the Editor:

We read with interest the article entitled "Evolutional aspects of children and adolescents with surgically corrected aortic coarctation: clinical, echocardiographic, and magnetic resonance image analysis of 113 patients."¹ We learned that transverse aortic arch hypoplasia should be corrected concomitantly with coarctation.

Nothing about the chest radiograph or cardiothoracic ratio was mentioned. In the authors' echocardiographic analysis, they did not comment about the dimensions or functions of the cardiac chamber, although left ventricular hyperkinesia and increased ventricular mass are found even in normotensive patients long after successful coarctation repair: increased ventricular mass can provoke rhythm disturbances and might cause an imbalance between muscle and coronary vessel growth, with decreased oxygen reserve. Their series is a select group, and not all patients undergoing operations during this 26-year period were included. Therefore, the study is subject to biases and is weak. The definition of recoarctation is to be broadened to include the systolic gradient between the right arm and leg: measured with a sphygmomanometer, Doppler echocardiography, magnetic resonance angiography, and/or angiography of the aortic isthmus and descending aorta, systolic gradients and diameters equal to or greater than 20 mm Hg at rest or a combination of a right arm-leg pressure gradient of more than 50 mm Hg after the bicycle test and more than 40% reduction in cross-sectional diameter of the aorta at the anastomotic site compared with the aorta at the level of the diaphragm.²

The recoarctation percentage after end-to-end anastomosis (14%) is not correct: it should be 12.53% rather than 14%. The patch aortoplasty figure should be 7.69% rather than 7%. However, this did not affect the order of frequency. We do not understand why the aortic ratio median behaved independently of age at coarctation correction or why there was no significant

difference between the median ratios of each aortic level within all age groups. Was there any correlation with the recoarctation or with the hypertension?

Factors influencing the process of recoarctation are tubular hypoplasia of the aortic arch, the surgical technique used, infective aortitis, complete resection of ductal tissue, suture material, suture technique, and width of the anastomosis. We do agree with their conclusion that none of the non-invasive methods used alone was sufficient to diagnose aortic recoarctation in every case, and they should be used as complementary methods. We would like to add that magnetic resonance angiography is indicated in all cases of suspected recoarctation. Currie and colleagues in 1985⁴ state that maximal catheter peak gradient equals 10.3 plus Doppler gradient.

What was the indication for surgical intervention? They have seen cases associated with endocarditis or mesenteric enteritis preoperatively or postoperatively. What are the methods of spinal protection they used to lessen the possibility of paraplegia, and what is the upper limit in the aortic clamp time?⁴

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Continuous wave Doppler echocardiographic assessment of severity of calcific aortic stenosis: a simultaneous Doppler catheter correlative study in 100 adult patients. *Circulation.* 1985;71(6):1162-9.

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Reply to the Editor:

In response to Dr Elsayed's questions, we would like to clarify that 111 patients had chest radiography postoperatively. In 57 (51.4%) patients the cardiothoracic ratio was 0.53 or less, and in 54 patients it was greater than 0.53. The left ventricular silhouette studied by the method was increased in 55 (49.6%) patients. The systolic ejection fraction (EF%) on echocardiography was available postoperatively for 111 patients (mean, 79% $\pm$ 6%; median, 79%; minimum, 45%; maximum, 92%). The left ventricular mass was also available for 111 patients (mean, 104.32 $\pm$ 28.24 g/m²; median, 100.00 g/m²; minimum, 50.00 g/m²; maximum, 220.00 g/m²). The mean left ventricular diastolic diameter available for 110 patients was 39.7 $\pm$ 9.1 mm (median, 38.0 mm; minimum, 20.0 mm; maximum, 63.0 mm). We decided to not include these variables because 78.8% of the patients had associated cardiac lesions that could interfere in the results. Furthermore, age and sex also interfere in the left ventricular mass, and the sample was not large enough to include all these variables. In relation to EF, we observed that in 24 patients with a mean age at the time of the operation of 14.9 $\pm$ 16.4 months (median, 6.8 months; minimum, 25 days; maximum, 4.6 years), EF before the operation (mean, 48% $\pm$ 10%; median, 48%; minimum, 29%; maximum, 65%) had a favorable evolution postoperatively (mean, 79% $\pm$ 5%; minimum, 67%; maximum, 90%).

The aortic ratio median behaved the same way independently of age at correction, meaning that it decreased progressively up to the isthmus in each group. This pattern of behavior was also observed in normal adult patients¹ studied by means of computed tomography, but the relationship was always greater than 1.

The recoarctation percentages relative to surgical techniques were revised and are correct.

About the surgical indications, 79% of the patients were symptomatic. The main symptoms were heart failure with or without cyanosis in small babies (3 of them were in shock), fatigue, ache in legs, and

headache in older children. In 92 (81.4%) patients aortic coarctation was considered severe (gradient at coarctation site $\geq$ 50 mm Hg), in 12 (10.6%) patients it was moderate, and it could be not classified in 9 (8.0%) patients. Only 1 patient had infective endocarditis caused by *Staphylococcus aureus* after the operation.

The method used for spinal protection was to decrease the nasoesophageal temperature down to 33°C by means of topical pleural hypothermia. The upper limit of aortic clamping was no more than 25 minutes.

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Assessing the value of neoadjuvant chemoradiotherapy and pathologic downstaging in the treatment of non-small cell lung cancer

To the Editor:

We read with great interest the article by Machtay and colleagues,¹ which underlines the feasibility of trimodality treatment (concurrent chemoradiation followed by surgical intervention) in the cure of locally advanced non-small cell lung cancer (LA-NSCLC) and suggest the use of pathologic downstaging as a predictor for long-term survival.

Several studies have explored the combined trimodality treatment: in the ESSEN² and SWOG³ trials, patients have been treated with cisplatin plus etoposide (the same drugs used in this study for 22 patients) with a similar radiation dose (45 Gy). They reported a rate of acute toxicity similar to that reported in this article, with esophageal toxicities as the most frequent. Esophageal toxicity could correlate with the adopted radiotherapy volumes, which