Vancouver grading system and the classification scheme we previously reported. We thank them for their contribution and look forward to their response.

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Reply to the Editor:

We thank Azizzadeh and colleagues¹ for their comments and commend them for their work on refining the definition of acute, traumatic aortic injury. Their classification, published in 2009,¹ was preceded by at least 3,²⁻⁴ and followed by at least 3,⁵⁻⁷ other classifications of traumatic aortic injury, all emphasizing the importance of a more detailed descriptive strategy to delineate the extent of injury after trauma.

The approach described by our group (Figure 1) includes 4 grades of injury, including intimal flap, thrombus, or hematoma of less (grade 1) or more (grade 2) than 1 cm, any pseudoaneurysm (grade 3), or any contrast extravasation (grade 4). It was postulated that this simplified classification could be easily reproducible among radiologists, and this was confirmed by our study.

Although both Azizzadeh's and our classification scheme recognize 4 grades of injury, the major difference between them is that theirs assigns a higher grade of injury to a mural hematoma (grade 2) than to an intimal flap (grade 1). Ours stipulates that

the extent of each of these 2 common findings should also be accounted for, such that a large intimal flap warrants more concern than a small mural hematoma. We found that this important distinction was directive in the management approach applied and was reflected by our results.

The Stanford⁷ and Seattle⁶ groups also published their classification of aortic injury in 2010 and 2011. The Stanford group used a detailed descriptive strategy, including the proportion of aortic circumference involved in a pseudoaneurysm. The Seattle group used a definition very similar to ours, including thrombi of small size in the minimal aortic injury group (grade 1). They did not retain mural hematoma, because they suggested it is sometimes poorly defined and difficult to reliably identify.

The fact that 4 similar classifications of aortic injury were published within a 3-year period illustrates the complexity of the patients with aortic injury and the necessity for a better radiologic description at a time when the role of medical, surgical, or endovascular treatment strategies

FIGURE 1. Vancouver classification of traumatic aortic injury.

is in constant evolution. The similarities reported by Azizzadeh and colleagues between the classifications illustrate that the local experience in many centers points toward a similar understanding of the pathologic process.

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