Reprint of: A is A*

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See related article on pages S110-5.

Intramural hematoma (IMH) has been described as “dissection without intimal tear.” Applying this definition, however, entails the impossible task of proving a negative—the absence of a tear¹—and a number of authors have suggested that if one looks carefully, intimal tears will be found in a great majority of supposed IMH cases.^{2,3} Alternatively, IMH may be viewed as a blood collection within the aortic wall not freely communicating with the aortic lumen and may represent a subcategory of aortic dissection that manifests different behavior by virtue of limited flow in the false lumen.⁴

On the basis of an early experience with 13 patients, the Stanford Group recommended managing IMH according to the same treatment strategy used for treating acute aortic dissection: urgent surgery for ascending, or type A, IMH and initial medical treatment for descending, or type B, IMH.⁵ Although this has become the accepted practice for type B IMH, widely divergent clinical experiences between Western and Asian centers have led to contrasting recommendations for managing type A IMH. In Japan, for example, Kitai and colleagues⁶ treated 50 patients with type A IMH medically, reserving “timely” surgery for specific complicating developments; 64% were discharged without surgery, with 0% late IMH-related mortality.⁶ A meta-analysis of 12 Asian and 30 North American and European studies, comprising 333 cases of type A IMH, showed that type A IMH was more frequent in the Asian series (33% vs 11%), where it was associated with lower surgical and medical mortalities (21% vs 9% and 33% vs 8%).⁷ Criteria for cautious initial observation and triggers for “timed” intervention derived from the successful Asian series have been summarized,⁴ but urgent surgery remains the standard approach in Western centers.⁸

In this context, a previous publication by Estrera and colleagues⁹ was notable in that it represented a large, Western dissection series, in which a carefully defined and monitored subgroup of 36 patients with type A IMH underwent not

emergency but “timely” surgery, generally within 3 to 4 days of the onset of symptoms. “Timely” surgery was associated with lower operative mortality, and Estrera and associates⁹ postulated that deferring emergency surgery permitted the aortic wall to thicken, facilitating repair, and allowed the extensive, acute inflammatory response to subside.

In this issue of the *Journal*, Estrera and colleagues¹⁰ report the extension of their series to 64 repairs for acute type A IMH, representing 15% of 419 operations for acute type A dissection. The patients with IMH underwent urgent repair within 3 to 4 days of the onset of symptoms, whereas patients with typical type A dissection underwent repair within 1 day. No deaths occurred during 3 days of observation in the IMH group. In contrast to the initial experience, the wider experience showed that there was no difference in early operative mortality (10.9% vs 14.7%; $P = .4$) or early morbidity between the type A IMH and typical type A dissection groups. The IMH group did, however, have improved late survival (mean, 48.8 months; $P < .05$) after adjustment for age and renal function.

The initial experience demonstrated that the hazard of conversion from type A IMH to typical dissection was very low in the first days after presentation,⁹ and indeed in the entire series there were no deaths in the “timely” group within the first 3 days. The finding that postponing surgery did not confer a clear benefit in terms of operative mortality, however, induced Estrera and colleagues to shift their strategy back to a policy of urgent operative repair for acute type A IMH.

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DOI of original article: <http://dx.doi.org/10.1016/j.jtcvs.2014.10.048>

*This article is a reprint of a previously published article. For citation purposes, please use the original publication details; *J Thorac Cardiovasc Surg*. 2015;149:143.

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Disclosures: Author has nothing to disclose with regard to commercial support.

Received for publication Oct 8, 2014; accepted for publication Oct 9, 2014; available ahead of print Oct 22, 2014.

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0022-5223/\$36.00

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<http://dx.doi.org/10.1016/j.jtcvs.2014.12.037>