A is A

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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 tear—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. 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.

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. 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 colleagues’ 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. 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%). Criteria for cautious initial observation and triggers for “timed” intervention derived from the successful Asian series have been summarized, but urgent surgery remains the standard approach in Western centers.

In this context, a previous publication by Estrera and colleagues 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 associates 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 colleagues 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, 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.

References

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