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Letter by Harris et al Regarding Article, "Outcomes of Patients with Acute Type A Aortic Intramural Hematoma

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To the Editor:

We read with interest the report by Song et al[1] outlining the management of ascending aortic intramural hematoma (IMH) at the Asan Medical Center in Seoul, South Korea. This series, the largest of this life-threatening condition, demonstrated that at that institution, 84% of patients (n=85) could be treated with initial medical therapy, resulting in a mortality rate of 7.1%. These results are impressive but are observational rather than a randomized comparison of medical and surgical therapy. "Unstable" patients were selected to undergo emergent surgery, and the remainder of "stable" patients were treated medically. The medically treated patients underwent weekly imaging studies and a prolonged hospitalization (the length of which is not specified), yet 29% required surgery at a median of 27 days. Of note, 4 patients who were classified as stable died suddenly between 5 and 36 months after presentation.

There has long been concern about the increased mortality in type A IMH in North American and European populations.[2] In the International Registry of Aortic Dissection population of mainly North American/European centers, the mortality rate for type A IMH was 39%.[3] Our pooled analysis suggests that medical therapy for ascending IMH is associated with a dramatically higher mortality in North America/Europe compared with Asia (33.3% versus 7.8%; $P<0.0001$).[2] In the most recent North American series, 80% of type A IMHs were treated with initial medical management and eventual repair. Progression to aortic dissection requiring surgical repair occurred in 33% of patients, with the most significant risk after the first week.[4] Conversion from IMH to aortic dissection is consistently seen in 1 of 4 patients presenting with IMH at North American/European sites.[2] There is currently no explanation for the international differences in the incidence and mortality rates for IMH, but they may be related to differences in pathogenicity or in the sensitivity of detection.[2] As suggested in the thoughtful editorial[5] and shown in the IRAD series,[3] there are likely differences in recognition, with Asian series including more subtle cases. Regardless, extrapolation of the results of Song et al to the North American/European population should be made with caution.

The central question is how to manage a patient with acute ascending IMH in North America/Europe. Although it is true that many patients may survive with initial medical therapy and have resorption of the IMH,[5] the disease course with medical therapy for ascending IMH is unpredictable and frequently associated with cardiac tamponade, acute aortic dissection, emergency surgery, and sudden death.[1–4] Although there may be predictors as to who may respond to medical therapy such as initial aortic diameter and hematoma thickness, prospective studies are needed for verification. Therefore, although we agree that certain high-risk patients could be offered initial medical therapy, this approach should be tempered by the potential for sudden, disastrous demise. Surgical therapy for acute ascending IMH should still be considered the treatment of choice for most patients in North America/Europe until results from further prospective studies suggest otherwise.

Disclosures

None.

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