Management of floating thrombus in the aortic arch

Salome Weiss, Roman Bühlmann, Regula Von Allmen, Vladimir Makaloski, Thierry P Carrel, Jürg Schmidli & Thomas R Wyss

OBJECTIVE
Floating aortic thrombus is an underrecognized source of systemic emboli and carries a life-threatening risk of stroke when located in the aortic arch. Optimal treatment is not established in available guidelines. We report our experience in managing floating thrombi in the aortic arch.

METHODS
Consecutive patients diagnosed with a floating aortic arch thrombus at a tertiary referral center between January 2008 and December 2014 were reviewed. Perioperative and midterm outcomes were assessed.

RESULTS
Ten patients (8 female) with a median age of 56 years (range, 47-82 years) were identified. Eight patients presented with a symptomatic embolic event, and 2 patients were asymptomatic. One patient presenting with stroke due to embolic occlusion of all supra-aortic vessels died 2 days after admission. Three patients (2 asymptomatic and 1 unfit for surgery) were treated conservatively by anticoagulation, leading to thrombus resolution in 2 patients. In the third patient, the thrombus persisted despite anticoagulation, resulting in recurrent embolic events. The remaining 6 patients underwent open thrombectomy of the aortic arch during deep hypothermic circulatory arrest. All patients treated by surgery had an uneventful postoperative course with no recurrent thrombus or embolic event during follow-up. Median follow-up of all patients was 17 months (range, 11-89 months).

CONCLUSIONS
Floating aortic arch thrombus is a dangerous source of systemic emboli. Surgical removal of the thrombus is easy to perform and followed by good clinical results. Conservative treatment with anticoagulation may be considered in asymptomatic, inoperable or high-risk patients.