Letters to the Editor

More on right atrial mobile thrombi

In an issue of the journal, the problem of right atrial mobile thrombi (RAMT) was brought to the attention of readers by two renowned groups of cardiologists[1-3]. It is amazing how little has changed in our understanding of the optimal treatment of this dramatic clinical entity since the first systematic attempt to approach this problem a decade ago[4]. While the group from Aachen[1] supports thrombolytic therapy as the treatment of choice, available evidence favours the colleagues from Uxbridge[2], that existing options (heparin, thrombolysis and surgery) were similarly effective[2-3]. The strong and rather arbitrary criticism of the surgical approach to RAMT, expressed by the group from Aachen is in clear contrast with the recent report of Chapoutot et al.[5]. On the other hand, deaths were reported during thrombolytic therapy in RAMT, even among patients haemodynamically stable prior to its introduction[5].

Obviously the thrombus, if it is mobile and yet remains in the right atrium, must be anchored somewhere. In the majority of cases the shape of the thrombus leaves little doubt that we are dealing with a venous embolus in transit through the right heart chambers. Even if one is unable to visualize it, a fragment of RAMT is probably either caught in the patent foramen ovale or entangled in the chordae tendinae or Chiari network. Obviously this anchoring fragment is under mechanical strain and even without thrombolysis it does not hold for long, as evidenced by the high early fatal reembolization rate if RAMT are left untreated[3]. Thus, thrombolysis should be expected to increase the risk of dislodgement of RAMT or its fragments to the pulmonary arteries. It may be that aggressive front loading or bolus rt-PA regimen used by the Aachen group keeps pulmonary resistance low, due to rapid lysis of intra-pulmonary thromboemboli. However, in view of the intra-cerebral haemorrhage in one of their four patients, this approach could not be considered superior to that reported earlier by others.

Unfortunately, data from randomized studies are neither available nor expected. This is probably why, despite the dramatic clinical picture and 2-5% prevalence among patients with pulmonary embolism, RAMT is not mentioned in the recent AHA Statement for Healthcare Professionals on Management of Deep Vein Thrombosis and Pulmonary Embolism. A few years ago, the RAMT Outcome Registry was created jointly by the members of the Working Groups on Pulmonary Circulation and Echocardiography of the European Society of Cardiology. The Registry aimed at prospective collection of homogeneous data regarding the appearance of right atrial mobile thrombi and also clinical and echocardiographic presentation and applied treatment. Since that time, over 70 cases have been reported to the Steering Committee. The design and early results, which seem to favour surgery, were presented at the recent Congress of the European Society of Cardiology, mostly with the aim of attracting the interest of additional centres. Though not ideal, this way of collecting data on RAMT may result in more evidence-based conclusions and recommendations than those from short single-centre series which continue to be both controversial and non-comparable.

The Registry is open to all interested centres. Information on the Registry and CRFs are available through the Working Group on Pulmonary Circulation and Right Ventricular Function FAX +48-22-6597506, E-mail: torbicki@amwaw.edu.pl. Please head your communication 'RAMT Outcome Registry'.

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References


Coronary velocity pressure tracings

Drs Di Mario and Serruys are to be congratulated on their comprehensive overview on principles of coronary velocity and pressure tracings published in a supplement to the journal in 1995[1]. They address the important issue of why and how functional, and not just structural, aspects of coronary artery stenoses severity have to be assessed in order to provide a sound basis for therapeutic decision, especially in cases of intermediate lesions. In particular, they provide the reader with valuable theoretical information on the rationale for the application of coronary flow velocity indices in functional assessment. Thus, it becomes implicitly evident that the notion that the mean coronary artery flow velocity is constant throughout the epicardial coronary artery tree[2] must be an artefact which is probably related to insufficient measurement techniques.

On the other hand, their explanation for the use of proximal-to-distal velocity ratios may create some confusion as to why coronary artery flow velocity must decrease from proximal to distal. The reasons for this impression mainly relate to their Figure 4 and the accompanying legend and are as follows:

(1) Of minor importance, the reader of this article would probably profit from finding out what exactly is meant by the 'principle of limited/adaptive vascular shear stress' governing the size ratios of the arteries proximal and