Reviewer’s report

Title: Penetration of left and right atrial wall and aortic root by an Amplatzer atrial septal occluder in a nine year old boy with Marfan syndrome: Case report

Version: 2 Date: 20 July 2007

Reviewer: Walter Knirsch

Reviewer’s report:

General

The manuscript by Loeffelbein et al. presents a clearly written and nicely illustrated case report on their experience with a child with Marfan syndrome in long term follow up after interventional closure of an atrial septal defect using an Amplatzer septal occluder. During five years the clinical and echocardiographic follow up was uneventful, but during surgical aortic root repair penetration of the device into the right and left atrial roof and to the non-coronary sinus of the aortic root were observed.

The authors conclude, that this complication might be related to the underlying connective tissue disorder and patients with interventional atrial septal defect closure in Marfan syndrome should be followed up closely.

Overall, this case report by Loeffelbein et al. reveals interesting data, and the authors might think about focusing on some details as mentioned below and extending their conclusions.

Major Compulsory Revisions (that the author must respond to before a decision on publication can be reached)

In reviewing the manuscript, I would make the following comments:

1) The authors should specify the exact anatomy of the atrial septal defect in transesophageal echocardiography, i.e. describing the rims of the defect before closure and the position of the occluder after closure (contact to the right, left atrial roof, and aortic root) and during follow up.

2) The authors should give more detailed information about the sizing maneuver of the defect during the intervention (native size of the defect, stretched diameter of the defect, using stop-flow or static technique? discrepancy between measurement with transesophageal echo and x-ray?) to rule out oversizing.

3) The authors should state the indication for the aortic root operation more detailed, because this is of importance in children.

4) The authors should state their conclusions more precisely and to answer the following questions: Would the authors recommend an interventional closure of an atrial septal defect in patients with Marfan syndrome in the future? Would the authors recommend other alternative devices? Would the authors change their
policy of postinterventional follow up?

Minor Essential Revisions (such as missing labels on figures, or the wrong use of a term, which the author can be trusted to correct)

Some minor comments
Title page: check email address of Mr. Schlensak
ABSTRACT: Conclusion: check style second sentence
Case presentation: line 1:...atrial septal defect please specify (secundum type)
line 2 give more details of the clinical characteristics of the patient in regard of the Ghent nosology.
Background: line 2 ...FBN1 gene has to be explained before using this word as an abbreviation.
Line 1 please give more detailed information about the prevalence or incidence of Marfan syndrome ...relatively common...sounds imprecisely.
Conclusion: line 7, atrial septum instead of right atrium.
line 12, tension of the tissue, what you mean by that, please specify.
line 13, strength of connective tissue, what you mean by that, please specify.
line 18-20: what do you mean by deterioration of clinical findings, please specify.

In general, please check grammar, style and punctuation.

Discretionary Revisions (which the author can choose to ignore)

What next?: Accept after minor essential revisions

Level of interest: An article of importance in its field

Quality of written English: Needs some language corrections before being published