Reviewer’s report

Title: The Familial Non-Syndromic Thoracic Aortic Aneurysms and Dissections maps to Marfan Disease Gene (Fibrillin 1) locus

Version: 1 Date: 26 February 2010

Reviewer: Dau-Ming Niu

Reviewer’s report:

In this study, the authors linked a three-generation family with familial non-syndrome thoracic aneurysms and dissection (TAAD) to fibrillin-1 gene using affymetrix -10K genechip. The authors pointed out the importance of obtaining detailed family history and echocardiographic screening of extended relatives of patients with nonsyndromic TAAD to prevent unanticipated events. The authors also raised an important question that whether secondary prevention strategies for Marfan syndrome patient should also be applied to all patients with familial TAAD.

Major Compulsory Revisions:

As I know, as early as 1996, the FBN1 gene mutation has been identified to cause nonsyndromic TAAD (see references). The novelty of this study is that it is the largest family being reported in literatures. However, some important points were missing.

Have authors performed mutation analysis of FBN1 gene for this family? I think this is very important to know the genotype and phenotype relationship between TAAD and FBN1 gene.

We have encountered one Marfan family. The affected mother only has thoracic aneurysms in absence of any other symptoms/signs of Marfan syndrome. However, two of her affected sons have lens dislocation, dura ectasia and somewhat Marfanoid habitus in addition to mild thoracic dilation (unpublished data). Have you ever checked lumbar MRI and eye conditions (lens dislocation, severe myopia...etc) of all your patients? How about their skeletal manifestations (especially for Protrusio acetabuli and pes planus)? I think it would be better to present these data as well as the height and weight of these patients on table 1.

References


Minor Essential Revisions
Page 3 line 2: FBN1 mutation careers may lack syndromic features. Please change careers to carriers.
Page 6 line 22: Although mutation careers----. Please change careers to carriers.

Discretionary Revisions:
Authors may want to address your opinions about secondary prevention strategies for nonsyndromic TAAD, especially for who has FBN1 mutation.