Reviewer's report

Title: Giant Aneurysm of the Atrial Septum Associated with Premature Closure of Foramen Ovale

Version: Date: 21 May 2005

Reviewer: Giuseppe Ando'

Reviewer's report:

General

The authors describe the case of a 1-day-old infant in whom Premature Closure of Foramen Ovale (PCFO) resulted in severe right heart failure in addition to the formation of a giant atrial septal aneurysm.

PCFO is associated with complex cardiac malformations (i.e. hypoplastic left heart syndrome or complete transposition of the great vessels) and the primary restrictive form of PCFO may lead to in-utero right heart failure and fetal hydrops. The hemodynamic alterations caused by PCFO, in some cases, have been even associated with the formation of an atrial septum aneurysm bulging from the higher to the lower pressure chamber, as in the present report.

The description of this clinical case may be of interest to researchers with closely related interests, i.e. perinatal care, cardiac pathology and paediatric cardiology. However, I see some limitations in this draft of the manuscript that the Authors should address.

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Major Compulsory Revisions

1. Page 6, 2nd para. The final statement of the paper is not supported by the description of the case and the Authors should critically review this sentence in the light of both the literature and their own experience: in some cases (as in ref. n° 4) right heart failure caused by PCFO reverted postnatally, in other ones neonatal prognosis has been poor (as in the present clinical case, in ref. n° 8 and in Coulson CC, Am J Perinatol 1984).
2. Page 6, 2nd para, 1st sentence: differently than in a fetus, it is not clear what the Authors mean as monitoring an infant with a PCFO, since it is well known that it is associated with dramatic distress symptoms shortly after delivery.
3. References N°2 and N° 9 have to be reviewed and corrected.
4. The quality of the pictures is of outstanding importance in a case report. The Authors should make an effort to improve both illustrations in size and resolution, especially the first one. Moreover, labels to be described in the figure legends should be placed both on the echocardiogram and on the pathology picture.

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Minor Essential Revisions

5. Page 3: 59% should not be considered a normal ejection fraction in a mildly hypoplastic left ventricle of a newborn. Moreover, it could be of interest to know some other vital parameters such as heart and breath rate or the Apgar Score.
6. Page 4: the description of the post-mortem examination is a little redundant and could be efficaciously shortened.
7. PCFO has been reviewed by Nowlen TT (Am J Cardiol 2000) and by the group by Bharati and Lev in Am Heart J 1991 and in 1996 (cited by Nowlen TT, ref. n° 9). These topical papers, besides
Ref. n° 5, could be quoted in the References.

Discretionary Revisions

8. The Authors could widen the Discussion by taking into account other possible therapeutic interventions in the light of prenatal screening with fetal echocardiography: for example, balloon septostomy in case of hypoplastic left heart syndrome (Vlahos AP, Circulation 2004) or great vessels transposition as well as maternal digitalization in case of in-utero right heart failure (Harlass FE, Obstet Gynecol Surv 1989).

9. The message of this case report could be more efficacious if the Authors would format it into the classical sections: Background, Case presentation, Discussion and Conclusion.

What next?: Unable to decide on acceptance or rejection until the authors have responded to the major compulsory revisions

Level of interest: An article whose findings are important to those with closely related research interests

Quality of written English: Not suitable for publication unless extensively edited

Declaration of competing interests:

I declare that I have no competing interests