Reviewer's report

Title: Hidden chromosomal abnormalities in Pleuropulmonary Blastomas identified by Multiplex FISH

Version: 1 Date: 22 June 2005

Reviewer: Lucia Roque

Reviewer's report:

General

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

-In their article entitled Hidden chromosomal abnormalities in Pleuropulmonary Blastomas identified by Multiplex FISH Quilichini et al. report the cytogenetic findings in two pleuropulmonary Blastomas. PPB is a rare entity and new findings in this entity should be added to the existing ones. However and before considering their article for publication several aspects should be addressed and modify by the authors:

1) Our main comment is that methodologies should be described in more detail and results should be described accordingly to the ISCN 1995 Human Cytogenetic Nomenclature.
   1.1) The cytogenetic cell culturing technique of the tumours should be described.
   1.2) The immunohistochemistry technique should be briefly described; antibodies identification and dilutions used should be mentioned.
   1.3) Karyotype description should really fulfil ISCN rules e.g.: the karyotypes should be described in relation to the appropriate ploidy level&8230;(see section 8.1 of ISCN 1995); or in case 1 it is not 38~44, X, -X, -8, +der(8)&8230;&8230;&8230; but 38~44, X, -X, der(8) &8230;&8230;, and all the other constitutional karyotype descriptions.
   1.4) The description of FISH abnormalities should also fulfil ISCN rules.
   1.5) The percentages of the signal hybridization populations found in the FISH nuclei evaluated with CEP8 probe should be added.
2) More careful should be consider regarding references.
   2.1) References regarding online data or abstract should be avoided for references 23, 24, and 30. Articles fundamenting the authors comments must exist.
   2.2) We could not find a comment in reference 27 reporting a 72% LOH at 11p13 in embryonal rhabdomyosarcomas, and again and article must exist.
   2.3) It should be always used et. al. and not and al.

Other comments that we would like to make are:

3) In Introduction section it should be mention as Hill DA reports in their article in Pediatric Dev Pathol 2005, 8: 77-84 that PPB was first defined by Manivel in 1988. It should be also clear in this section that complex karyotypes were only found in case at recurrence and in case 2 at diagnosis.
4) In section II 2 &8211; Pathological Findings &8211; paragraph 2 should be written in a more clear way.
5) In section III &8211; At the results description we must point out that it is extremely hard to consider that a duplication of 8q11q12 occurred.
6) In Discussion at page. 11 paragraph 2 it should be mention the breakpoints at region 11p(?)11pter.
7) In Discussion at page. 12 were it is written embryonal tumour should be written embryonal rhabdomyosarcoma.
8) In Discussion at pag. 12 paragraph 2 should be made clear since the work of Bonner et. al. was
made in murines and the work of Garnis et. al. also specifically addressed to 1p region and the most common type of lung carcinomas, not embryonal tumours in the lung.

9) In Figure Legends - Fig 2 identification should be similar to figures 3 and 4, i.e., 2a, 2b, 2c, and 2d. At Fig. 3 and 4 arrows not circles should be used. In Fig 3b why is one of the markers described as der(?)dic (11;21) and not as referred in the text as a der (11) ?

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: Needs some language corrections before being published

Statistical review: No

Declaration of competing interests:

I declare that I Have no competing interests'