Reviewer’s report

Title: Precocious Puberty in a 4 year Old Egyptian Girl Caused By Mixed Germ Cell-Sex Cord- Stromal-Non Gonadoblastoma Tumour of the Ovary. a Case Report

Version: 1 Date: 18 March 2012

Reviewer: Alec Talerman

Which of the following following best describes what type of case report this is?: Presentations, diagnoses and/or management of new and emerging diseases

Has the case been reported coherently?: Yes

Is the case report authentic?: Yes

Is the case report ethical?: Yes

Is there any missing information that you think must be added before publication?: Yes

Is this case worth reporting?: Yes

Is the case report persuasive?: Yes

Does the case report have explanatory value?: Yes

Does the case report have diagnostic value?: Yes

Will the case report make a difference to clinical practice?: No

Is the anonymity of the patient protected?: Yes

Comments to authors:

The Authors report a case of an unusual ovarian tumor occurring in a phenotypically and genotypically normal 4 year old girl. The presentation of the clinical, radiologic and laboratory findings is well done and informative, but the description of the pathologic findings is partly confusing and not quite correct. The Abstract does not need a long introduction, which actually duplicates the introduction to the article, and should consist mainly of the findings. The Introduction and the Case Report, as well as the macroscopic pathologic findings are informative. The diagnosis given is incomplete, as this is a mixed germ cell-sex cord stromal tumor (MGCCST) associated with yolk sac tumor (YST). The diagnosis of MGCCST is supported by Figure 4, although a better illustration
of the tumor would be preferable. Figure 5 probably represents YST, but unfortunately the quality of the illustration is not very satisfactory and should be replaced. Figures 6 and 7 are not very good and could be deleted without detracting from the article. The immunocytochemical Figures 8 and 9 confirm the histologic findings, but Figures 10 and 11 could be deleted as the findings are described sufficiently well in the text.

As to the confusion regarding the pathology, MGCCST and YST are two completely separate histopathologic entities. In the Discussion, the Authors state The germ cell component of tumour is yolk sac tumours which are highly aggressive malignancies that show early intra-abdominal dissemination and metastasis. This sentence is incorrect. What very occasionally occurs is that YST may arise from the germ cell component of MGCCST, as it does sometimes in cases of gonadoblastoma. This aspect makes the present case even more unusual and worth reporting.

MGCCST is by now a well recognized entity (see Reference 18) and the term “Unclassified” should be deleted (Introduction). A better reference to gonadoblastoma than Ref. 20 would be the classic study of the subject by Scully (Scully R.E., Cancer 1970, 25, 1340-1356).

**Quality of written English:** Acceptable

**Declaration of competing interests:**

I declare that I have no competing interest.