Reviewer's report

Title: Assessment of the role of transcript for GATA-4 as a marker of unfavorable outcome in human adrenocortical neoplasms

Version: 1 Date: 28 October 2003

Reviewer: Alessandro Peri

Reviewer's report:

General
The authors focused on the expression of GATA-4, GATA-6 and LHR in adrenocortical tumors. The rationale of the study was based on the observation that in mice GATA-6 is expressed only in the normal adrenal cortex, whereas GATA-4 is expressed in adrenocortical tumors. The expression of GATA-4 and -6 transcripts was evaluated by a non-quantitative RT-PCR approach and the amplification products were not further subjected to membrane blotting and hybridization to a specific probe, which should improve both sensitivity and specificity. No difference in the expression pattern of GATA-4 and GATA-6 was observed between "non-metastasizing" and "metastasizing" adrenal tumors.

Discretionary Revisions (which the author can choose to ignore)

Minor Compulsory Revisions (such as missing labels on figures, or the wrong use of a term, which the author can be trusted to correct)
The quality of the figures (at least the figures available to the referee) is not completely satisfactory. For instance, in fig. 1c it looks like there are more than 9 NM GATA-4 positive tumors, probably due, at least in part, to the presence of smear (i.e. primer-dimers). In fig. 2a it is almost impossible to see some of the positive signals.

In table 1 there is something missing, at least in the version available to the referee. Under "follow-up", the parentheses are empty ( ).

Major Compulsory Revisions (that the author must respond to before a decision on publication can be reached)
A critical point, which needs to be clarified, is represented by the fact that the authors indicated adrenal tumors as "non metastasizing" (NM) or "metastasizing" (M). Based on the histopathological assessment (as detailed in the literature covering this field), the tumors should be divided into adenomas and carcinomas. What do the author mean by NM tumors? If these tumors are benign, it should be clearly indicated. The division into NM and M tumors is misleading. Details on the histopathological assessment (Weiss criteria are used worldwide) should be provided.

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

Level of interest: An article of limited interest

Quality of written English: Acceptable
Statistical review: No

Declaration of competing interests: None