Reviewer’s report

Title: pRb2/p130 protein expression and RBL2 mutation analysis in Burkitt lymphoma from Uganda

Version: 1 Date: 19 February 2009

Reviewer: Andrzej Semczuk

Reviewer’s report:

In their study, Kalungi et al. evaluated pRb2 expression pattern and exons 19-22 RBL2 tumor suppressor gene alterations in the endemic Burkitt lymphomas from Uganda. Most of the slides analyzed (84%) were pRb2 positive, showed nuclear reactivity, while no significant association existed between immunohistochemical profile and clinico-pathological variables of tumors. Finally, selected 14 cases were screened for exons 19-22 mutations (NLS signal domain) but no alterations were detected.

This manuscript is gently prepared and well-written, the major bias is that genetic analysis of the RBL2 was focused only at exons 19-22 in a strictly limited number of cases. On the other hand, nuclear and/or cytoplasmatic staining patterns may be associated with gene mutations outside the region analyzed, but such a study needs huge work. In the opinion of the Reviewer, the authors should describe the antibody domains which may be associated with immunostaining activity. Finally, the Reviewer suggest to delete the Figure 2 (there were no RBL2 mutations, and the comparison with literature data seems strange), however this suggestion is up to Author’s decision.

In the literature, most of the endometrial carcinomas revealed pRb2 staining (88-100%), and a heterogeneous nuclear reaction was reported within the glandular, but not within stromal endometrial cells (Semczuk et al. Pathol Res Pract 2000,196:41-46). A significant correlation existed between allelic loss at RBL2 and weak/absent pRb2 expression (Semczuk et al. Virchows Arch 2002,441:577-583). Moreover, it would be a great interest to evaluate in the future the LOH (one of the mechanisms of tumor suppressor gene inactivation due to Knudson’s theory) of the RBL2 in BL cases from Uganda showing negative protein immunoreactivity.

In the opinion of the Reviewer, after minor revision this manuscript may be accepted for publication in the BMC Clinical Pathology.

Level of interest: An article of importance in its field

Quality of written English: Acceptable

Statistical review: No, the manuscript does not need to be seen by a statistician.
Declaration of competing interests:

I declare that I have no competing interests' below.