Reviewer’s report

Title: Immunohistochemical analysis of ezrin-radixin-moesin-binding phosphoprotein 50 in prostatic adenocarcinoma

Version: 1 Date: 15 April 2011

Reviewer: Robert Allan

Reviewer’s report:

The authors analyzed the expression of Ezrin-radixin-moesin-binding phosphoprotein 50 (EBP50) in a series of benign prostatic tissue, BPH, HGPIN and primary and metastatic prostatic adenocarcinoma. EBP50 has not been extensively studied in prostate tumors and the authors reference studies in other organs (breast, liver) that suggest a possible role in oncogenesis. The study design and use of tissue microarrays is sound along with choice of control tissues. TMA cores were scored using an automated system to calculate the intensity score overall for the core. The authors report that EBP50 expression is present in normal and hypertrophic prostate, high grade PIN and metastatic carcinoma. They conclude that staining intensity was greatest in HGPIN and was significantly less in advanced metastatic prostatic carcinoma. The difference in the staining pattern was also reported- more membranous in benign prostatic tissue with more cytoplasmic in advanced disease. The statistical analysis of one-way ANOVA with Tukey test is appropriate given multiple post-test comparisons.

I believe this paper will be of interest to those in prostate cancer biology as few studies have examined this question. I do have some suggestions that I believe will improve the conclusions of the study. First, I would attempt to clarify how the automated scoring was performed. My concern would be that the overall intensity of staining would be related to the relative density of glandular elements in the core since the stroma does not appear to have staining. In other words, could the higher scores be a reflection of more density of glands? If possible, the intensity scores should be proportionate to the glandular area on the slide. My other recommendation would be that the figures reporting the mean intensity score be shown as dot displays with error bars so readers can see the distribution of values more easily.

After these minor revisions, I recommend that this accepted for publication.

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

Quality of written English: Acceptable

Statistical review: Yes, and I have assessed the statistics in my report.
Declaration of competing interests:

I declare that I have no competing interests.