Reviewer's report

Title: Paraganglioma of the urinary bladder: review of the contemporary literature

Version: 1 Date: 27 January 2013

Reviewer: Wade Sexton

Reviewer's report:

Major Compulsory Revisions:

1. Methods: Obviously, most pheochromocytomas are benign. Discuss the histologic features the authors used to assign a malignant phenotype.

2. Results: The authors state that few cases reported TNM staging and there was no report regarding tumor grade. Can the authors reference in the materials and methods how paragangliomas/pheochromocytomas should be graded? Should the standard TNM staging system apply to these tumors given that tumorigenesis does not originate within the urothelium? Would malignant tumors harbor greater potential for distant progression as they have more ready access to abundant lymphatic and vascular channels within the lamina propria or muscularis propria?

3. Results: Can the authors elaborate in the results or in the discussion sections the therapeutic options for metastatic recurrence or progression (i.e. mitotane)? Furthermore, were patients with functional tumors more likely to demonstrate aggressive biology?

4. Discussion: Here is where the authors make first mention of “their patient”. Thus, this appears to be a case report and a review of the literature. If a case report, the case should be described. Or, the authors can simply review the literature without mention of their case. Choose one approach or the other.

5. The authors suggest that good survival can be achieved with aggressive surgical resection. As only 10% of patients are thought to have malignant features to begin with, I think the better statement might be that symptomatic control is best achieved with surgical resection in the majority of patients as benign disease would not be expected to impact survival (unless functional tumors promote adverse medical events contributing to the patient’s death). The authors need to revise these statements in the discussion.

6. Discussion: The authors argue for more accurate reporting of stage and grade. However, is tumor stage and grade truly important when the majority of tumors are benign?

7. Discussion: Does surgical resection most commonly result in resolution of symptoms? Do patients with functional tumors who subsequently develop local or metastatic recurrence, experience a return of their symptoms?

8. What do the authors recommend for postoperative surveillance. How might this differ for patients with benign, equivocal, or malignant tumors? Are serum biochemical studies performed as part of surveillance in patients with functional
or nonfunctional tumors? Discuss the frequency of follow-up as well as any role for surveillance cystoscopy, or surveillance imaging (i.e. CTs, MRIs or MIBG scans).

9. As the authors state that they have performed the most extensive review to date, rather than calling for standardized reporting guidelines, could they make recommendations regarding what actually should be reported or standardized?

Minor Essential Revisions:
1. Background: The authors should state where the sympathetic nerves are most concentrated within the bladder wall.
2. Materials and Methods: Consider revising to allow figure 1 to speak for itself rather than duplicating the information from the figure in the written manuscript.
3. Results: explain if diagnosis is usually first established with TURBT or bladder biopsy?
4. Results: Tables 2 and 3 should be deleted and simply reported in the results section.
5. Discussion: Suggest using the more common and recognized term pheochromocytoma earlier in the manuscript (i.e. background).

Discretionary Revisions: None

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

**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.