

Peer Review File

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Reviewer A

First, I want to congratulate the authors for their extensive research to summarize a rare urologic entity. The authors provided a comprehensive summary of what is already published in the literature with excellent separations of the GU organs involved. The tables provide an excellent summary.

I have few suggestions and comments.

IMTs are rare urologic neoplasms where the diagnosis is confirmed by histopathological analysis, the authors discussed ALK positivity, yet ALK is only positive in 50% of the cases. I would suggest to add the other immunohistochemical features that are used to differentiate this neoplasm from others since it shares similar features with sarcomas. (vimentin, desmin, smooth muscle actin and negative for Myf4 and MyoD1) and discuss the similarities shared with other tumors.

Reply 1: We have added a robust section about pathology from lines 98-118, which our pathologists helped with. We hope this addresses this comment.

The bladder seems to be the most affected GU organ, any role for the MRI in determining the depth of invasion and hence plan a different treatment strategy, since most of the cases that recurred were treated with TUR. Was the MRI a helpful tool in the cases reviewed? Please address this in your discussion.

Reply 1: In our series, the bladder does seem to be the most affected organ. There is not a well-established role for MRI in the staging of IMT or bladder tumors in general. Since bladder IMT mimic a urothelial malignancy in both imaging and gross appearance, the most commonly performed imaging studies include CT scan, with MRI used occasionally. As experience with MRI for bladder cancer improves due to more frequent utilization over the last 2-3 years, this may become a useful tool for IMT. TUR remains essential to make the diagnosis of IMT.

We do address this in the discussion section starting with line 377, but added clarification “CT, MRI, Ultrasound” in parantheses.

It would be useful for clinicians as well if you can add a figure with multiple pictures of endoscopic views or cross section of the tumor at diagnosis/intra-op (if available in the published manuscripts)

Reply 1: We have added a figure of the histologic slides of IMT. We do not have any

gross sections (cross section) or gross pictures that are not copyrighted from a manuscript,

Below are few comments with the corresponding lines:

Line 246: correct the sentence by removing and

Changes in the text: Grammar was corrected

Line 248-251: the outcome is not clear for the medically treated case, did the mass regress and resolve with antibiotics? Was a biopsy done confirming it was an IMT?

Reply: Yes. The mass demonstrated regression in eight weeks. The mass was biopsied in this case as it was thought to be abnormal in the age group (15 years old). We edited the text to reflect the details of this case more clearly.

Changes in the text: Added biopsy of mass and regression to text lines 263-265

Line 303: please specify the sex of the patients if available

Changes in text: added sex of patients Line 318

Line 315: I think there's a missing sentence here

Reply: Agree. We have made corrections.

Changes in text: Line 330, formatting fixed

Line 325: specify sex of the patients if available

Changes in text: added sex of patients, line 339-340

Reviewer B

L107: is this a systematic review following PRISMA guidelines (as stated in the abstract and in the methods), or is it a narrative review (as stated here and elsewhere)?

Reply: While initially approached a systematic review, since the rare nature of the disease and the use of patient-level data preclude Risk of Bias assessment of the included studies. This was ultimately a narrative review. We included the PRISMA diagram to demonstrate our systematic gathering of evidence. We clarified this in abstract lines 46-47 and line 129 (to gather data systematically), line 149 (data were synthesized into a comprehensive narrative review).

The pathology side of this review is lacking, but I see pathologists among authors. It should be integrated both textually and pictorially.

Reply 1: We have added a more robust pathology section from lines 98-118, as well as an additional figure.

批注 [BM1]: Fix the wording in abstract and methods

Why was the search limited to <3 years?

Reply: We did not limit our search to articles published within the last 3 year, and the included references go back beyond 3 years.

Searching with an additional term of `AND ("Adult" or "Pediatric")` does not have the outcome intended by the authors, but actually excludes cases where those two terms are not mentioned in the title/abstract/keywords. Thus, it is likely that some perfectly valid published manuscripts were excluded from the search because of this. The authors are invited to check that this is not the case.

Reply: We appreciate the reviewer's attention to detail in reviewing the search methodology. We believe our search methodology is sound. When using PubMed advanced search functions, the actual search terms are expanded to "All Fields" including in article text and includes other MeSH terms which are synonyms. While running the search again omitting "adult" and "pediatric" produces more results, a review of these results included pathologic reports and descriptive papers without patient level data and descriptions of demographic data, workup, treatment, follow up. This portion of the search was designed intentionally.

Was this article found and excluded, or not retrieved by search?

<https://doi.org/10.1016/j.prp.2022.153998>

Reply: Because this article does not include any demographic, diagnostic or treatment information, it does not meet the inclusion criteria and would have been excluded.

Reviewer C

Considering that inflammatory myofibroblastic tumor is a rare entity that can occur in several organs, in this comprehensive review, the authors aim to identify the type of this tumor occurring at various genitourinary organ sites; in addition, they describe patterns of clinical management in adult and pediatric patients. The manuscript is interesting, with a well-presented discussion. However, the linguist style should be improved.

Reply 1: Throughout the revision process we have attempted to improve the writing style where able (see edits above), while still preserving the overall integrity of the paper. If there are still specific sections that this reviewer believes need improvement, we are open to re-writing them.