

Dear reviewers,

We thank your careful reading of the manuscript and detailed comments. Below we provide point-by-point answer to comments and action taken to improve the manuscript. Our responses are shown below in blue.

For reviewer #06113229:

Comment 1:

First time:

Although clinical diagnosis favors mucocele and pyogenic mucocele but histopathological diagnosis followed by immunohistochemical analysis is recommended to rule out spectrum of sino-nasal tumors of head and neck region.

Second time:

Try to do immunohistochemical analysis if possible.

Response 2:

In our first version, the histopathology of each cases were put together with the treatment, and the immunohistochemical results were not recorded in detail. Thanks to the comment of the reviewer, we have set up a subheading of histopathology and described the results of pathological immunohistochemistry in detail of two cases, while one case didn't have the immunohistochemistry. This can help us to better understand mucocele and pyogenic mucocele from a histopathological perspective and also help in the differential diagnosis, especially in excluding nasal-related tumors.

In the submitted reversed version we made a mistake by forgetting to add the immunohistochemical analysis section. When submitting, this part was not a standard module. we added the HISTOPATHOLOGY part, but it seemed that it had not been added successfully. And we didn't find this missing in the auto-generated version.

Attached file is a version with added immunohistochemical analysis. Our newly added analysis is as follows:

Histopathology

Case 1: The intact lining of the mucocoele tissue was stained with hematoxylin and eosin, revealing respiratory epithelium on microscopy (Figures 1I and 1J).

Case 2: The medial lamellae of the pyogenic mucocoele and middle turbinate tissue were stained with hematoxylin and eosin. On microscopy, the pyogenic mucocoele lining revealed hyperplasia and hypertrophy with various inflammatory cell infiltrations (Figures 2G and 2H). Immunohistochemical staining results were as follows: CK-pan(+), CgA(-), SyN(-), P53: 10% of cells were weakly positive (+); and the Ki index was approximately 5%.

Case 3: The intact lining of mucocoele tissue was stained with hematoxylin and eosin, revealing respiratory epithelium on microscopy (Figures 3J and 3K). Immunohistochemical staining results were as follows: CK-pan(+), CK14 (-), P63 (-), SyN(-), and a Ki index was approximately 4%.

Comment 3: Also, there should be elaborate discussion on on literature review on this entity with differential diagnosis to understand biological behaviour and prognosis of such lesions.

Response 3:

Thanks to the comment of the reviewer, we discuss the differential diagnosis of this mass in detail. The mass is mainly differentiated from turbinate hypertrophy, ethmoid sinus mucocoele, benign and malignant solid tumors (mesenchymal or osteoma), meningocele, and dacryocys mucocoele through physical examination, imaging and histopathology. Numerous literatures suggest that endoscopic marsupializations of turbinate mucocoele and pyogenic mucocoele is the best treatment and is known to show very good results without recurrence.

Attached file is a version with analysis. Our newly added analysis is as follows:

In our patients, nasal endoscopy could reveal turbinate hypertrophy; however, it needs to be differentiated from turbinate hypertrophy, ethmoidal mucocoele, benign or malignant solid tumor (mesenchymal tumor or osseous tumor),

meningoencephalocele, and dacryocyst mucocele, based on the patient's symptoms and physical examination^[6, 12, 14, 21-23]. On CT scan, mucocele presents as non-enhancing, homogeneous, hypodense, well-defined, rounded, and expansile lesions^[8]. Meanwhile, MRI clearly demonstrates the cystic nature of the lesion on T2 sequences^[6, 12]. First, the malignant solid tumor was precluded because there was no necrosis, crusting, epistaxis, cervical lymphadenopathy, and bone destruction found by CT and MRI imaging^[12]; Based on pathological and immunohistochemical results, sinus tumors including neuroendocrine tumor^[24-25], squamous cell carcinoma^[26], and adenoid cystic carcinoma^[27] could be excluded.

For reviewer #00159305:

Comment 1: A concise, comprehensive, easy to read and well structured case report. I suggest to check the English consistency of the manuscript. There are some spelling errors throughout the text. I think this paper is welcome and relevant for medical daily practice. Thank You.

Response 1:

Thanks to the comment of the reviewer, we have now worked on both language and readability and have also involved native English speakers for language corrections. We really hope that the language level has been substantially improved.

For reviewer 05663189:

Comment 1: 3 cases of turbinate mucoceles were presented. Though such cases are rare and they are of interest to clinicians. The cases are well presented with relevant details and use of images. The discussion is comprehensive and covered all aspects of the cases.

Response 1:

Thanks to the comment of the reviewer.

At last, we provide revised manuscripts and manuscript revision with change notes as attached files. We will be happy to edit the text further, based on helpful comments from the reviewers.