

[August 7,2021]

Jin-Lei Wang
Company Editor-in-Chief
Editorial Office
Baishideng Publishing Group Inc.

Dear Editor:

I wish to re-submit the manuscript titled **“Spontaneous pneumothorax in a 17-year-old male patient with multiple exostoses: A case report and review of the literature.”** The manuscript ID is 69348.

I thank you for your email dated 27 July 2021 enclosing the reviewers' comments. I thank the reviewers for thoughtful suggestions and insights. The manuscript has benefited from these insightful suggestions. I look forward to working with you and the reviewers to move this manuscript closer to publication in *World Journal of Orthopedics*.

The manuscript has been rechecked and the necessary changes have been made in accordance with the reviewer's suggestions. The responses to all comments have been prepared and are given below in a point-by-point manner. Changes in the revised manuscript have been indicated in red font.

We hope the revised version is now suitable for publication in *World Journal of Orthopedics*.

Thank you for your consideration. I look forward to hearing from you.

Sincerely,

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Responses to the reviewer's comments

Comment 1: First of all, as a congenital disease, did the patient's close relatives receive a full-body skeletal imaging examination?

Response:

The patient's family members did not undergo a full body skeletal imaging examination because they did not present with any complaint. However, the patient's father had bony protrusion around his knees. We have added this in the revised manuscript in family history subsection under the Case Presentation section (page5,line24-25, page6,line1,5-6).

Our patient had bony protrusions in the bilateral humerus, scapula, clavicle, fibula, tibia, femur, and ilium. Based on physical findings, we considered the patient having hereditary multiple exostoses.

We add the sentences in Personal and Family history section.

"He had multiple bony protrusions in the bilateral humerus, scapula, clavicle, fibula, tibia, femur, and ilium." The patient's father had bony protrusion around his knees, but his family members did not undergo a full body skeletal imaging.

Comment 2: Secondly, the patient was found to have multiple rib spurs, was there a possibility that those rib spurs that were not treated surgically could re-injure the lung? What were the criteria for intraoperative intervention in hyperosteogeny of the ribs?

Response:

We considered the following while deciding for surgical intervention:

- 1) Sharp tip of the exostosis and laceration of the parietal pleura are suggestive of the potential risk of lung injuries.
- 2) Lung injuries caused by the exostosis may easily occur in the lower lobe because the respiratory motion of the lower lobe is greater than that of the middle and upper lobe.

In our case, exostosis of the right seventh rib was resected because it had sharp tip, confronted with the lower lobe, and parietal pleura laceration was observed in the thoroscopic findings.

In contrast, the exostoses of the right first, third, and fourth ribs were not removed because their tips were dull, parietal pleura laceration was not found, and the spurs did not confront with the lower lobe. Moreover, their spurs were less likely to grow further and

re-injure the lung due to the completion of bone maturity.

We add the sentences in the Treatment section.

“Thoracoscopic observation revealed that the exostosis of the right seventh rib had sharp margins and the parietal pleura was lacerated; it was the apparent cause of injuries in the visceral pleura. The bony spur of the right seventh rib was removed using forceps and the arthroscopic burr was used to scrape down the spinous lesion. Other spurs were not treated because their edges were dull, and parietal pleura on the spurs was not peeled off.”

We add the sentences in Discussion section.

“Morphology of sharp tip of the exostosis and laceration of the parietal pleura are suggestive of the potential risk of lung injuries. The location of the costal exostosis is associated with lung injuries because the respiratory motion of the lower lobe is greater than that of the middle and upper lobe^[24]. In our case, exostosis of the right seventh rib was removed due to the risk of re-injury of the lung. In contrast, other costal exostoses were not removed because their tips were dull, and no parietal pleura laceration was found. The spurs of the right first, third, and fourth ribs were not confronted with the lower lobe. Moreover, their spurs were less likely to grow further and re-injure the lung due to the completion of bone maturity. ”