Author’s response to reviews

Title: Chyloptysis with chylopericardium, a rare case and mini-review

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Author’s response to reviews:

Thank reviewer very much for the comments.

Reviewer reports:

Tanmay Panchabhai (Reviewer 1): GENERAL COMMENTS:
I have read with interest the article submitted by the authors.

TITLE:

Please make title more attractive without giving out the diagnosis to make the readers think
Answer: very good suggestion. Hope you like the new one: Chyloptysis with chylopericardium, a rare case and mini-review.

ABSTRACT:

Please change "cavum pericardii" to pericardium as is commonly used
Answer: OK, thanks a lot.

What are chylous disorders - please be more specific
Answer: Very good. It is corrected as: chylous reflux syndrome

MANUSCRIPT / CASE PRESENTATION

Para 1 Line 59 - what did the HRCT show? Please describe findings instead of saying did not suggest LAM - that can be included in discussion
Answer: Great. I added in discussion, page8. HRCT is the most sensitive modality to identify the characteristic pathognomonic features of LAM, which are pulmonary cysts, ranging between a few mm and 1 cm in diameter with a thin wall with clear borders from the underlying normal parenchymal image, scattered evenly over all normal lung fields.

Para 2 Line 12-13 - What do the authors mean by diffuse exudation?
Answer: I mean that the exudation spread over a wide area.

Para 2 line 48 - how does one use Ultrasound to diagnose thoracic duct obstruction? If authors have any data about the same that needs to be mentioned - otherwise I am not aware of how this could be used
Answer: Great. Now we added the data in the text: The internal diameter of the left cervical thoracic duct is about 2.3mm, its terminal lumen is thin and the inner diameter is less than 1mm.

Why was both MRI angiogram and lymphangiogram both done? The lymphangiogram should have given all the answers so authors need to justify why MRI was done
Answer: You are right, of course. The patient had been feared of invasive examination at beginning, thus MRI was done.

Please give details of what surgery was performed please
Answer: OK. Here I copied the operation record from the surgery:

Operative name: Thoracic duct exploration, terminus adhesions loosening.

After the internal jugular vein was free, we saw that the main stem of the thoracic duct, 1 main cervical stem and the lymphatics from the chest wall joined to form the ampulla. They joined the ampulla into the jugular vein angle. The subclavian trunk ran behind the thoracic duct, joined the bronchus mediastinum trunk plus 1 cervical trunk, and then remitted to ampulla. The end of the thoracic duct, ampulla, and various lymphatic trunks were found to be parceled and compressed by thicker fibrous tissue and a vascular sheath of the internal jugular vein. Chylous reflux was observed in the lymphatic tubes of the neck, bronchomediastinal, and subclavian trunks. Lymph fluid was not flowing freely into the blood. Thicker fibrous tissue and the vascular sheath were separated, yet the end of the thoracic duct remained compressed by the neck trunk. The thoracic duct and ampulla were at an angle owing to displacement by the chest wall lymphatic tubes, so lymphatic drainage was limited. Therefore the involved chest wall lymphatics were ligated, compression of the thoracic duct was relieved, and lymph flow returned to normal.

Please explain how chyloptysis can be differentiated from plastic bronchitis;

Answer: Good question. I have added the following sentence and cited the two papers in the discussion: Chyloptysis is that chyle move into the tracheobronchial tree. Chylous mucus in the airway can solidify overnight resulting in formation of chylousbronchial casts. Plastic bronchitis could be formed by many compositions. Recognition of the characteristic appearance and differential diagnosis of mucus plugs will hopefully facilitate diagnosis and management(15,16).

Discussion needs to be expanded more

Answer: Great. I expanded the discussion in some places.

What is the mechanistic difference of chyloptysis in LAM / lymphangiomatosis etc as compared to direct mechanical obstruction

Answer: I have added following statement in the discussion: Compared with directly mechanical obstruction, chyloptysis in LAM can occur due to the generation of abnormal communication between lymphatic channels and the bronchial tree since LAM cells proliferate along the bronchial trees and gradually destroy the airway.
Why do the authors think the patient did not have a chylothorax

Answer: Good question. We found chylothorax after surgery but not before. We considered that there was no bronchopleural fistula in the context of concurrent chylouspleural effusion before surgery.

TABLES:

Add a table on causes of chyloptysis with mechanisms of action

Answer: Great idea. We added a table on causes of chyloptysis.

Table 1: The main causes of chyloptysis obstruction of the thoracic duct lymphatics derivedlymphangiomatosis, lymphangioma, lymphangioleiomyomatosis compressed mediastinal tumors iatrogenic injury surgery, radiation, trauma an abnormality of the lymphatics lymphangiectasis, incompetence of lymphatic valves Bechet's disease lymphatic dysplasia (including yellow nail syndrome) high venous pressure coronary artery disease, untreated heart failure

FIGURES

Figures are good, add bronchoscopic images

Answer: OK, we added the bronchoscopic images(Fig.4).

REFERENCES

Consider reviewing the following references to see you can expand on chyloptysis and plastic bronchitis:


Answer: Great, I had added.