

Peer Review File

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Reviewer A

The authors present a series of 12 patients with recurrent symptomatic non-malignant effusion after lung resection for cancer treated with tunneled pleural catheters. They report excellent symptom control and a high rate of spontaneous pleurodesis. The rate of complications was low, and none were serious. The primary limitations were the small size of the cohort and the retrospective nature of the study. Overall, the paper is very well written with a good introduction and well-reasoned discussion. The results are plausible and add to our understanding of the appropriate management strategies for post-resection pleural effusion.

Reviewer B

Reinoso and coworkers reported a retrospective series of 12 patients who had received IPC for recurrent nonmalignant pleural effusion post lung resection. The 12 cases had undertaken at least 2 thoracenteses for symptomatic relief, prior to IPC placement. The finding has added to the experience of the utilization of IPC in non-malignant settings. I have the following questions for the authors:

Comment 1: What is the natural course of post-lung resection non-malignant pleural effusion? I can see many of them had their effusions spontaneously resolved after 1-2 thoracentesis, can a third thoracentesis be an option for these 12 patients rather than IPC which may be more costly? This should be included in the discussion.

Reply 1: From our literature review most patient's do not develop pleural effusions post lobectomy and of those who do it usually revolves with 1 additional pleural procedure. Some patients in our cohort opted for a 3rd thoracentesis prior to opting for IPC (Line 131-132).

Changes in text: Added more information on line 160-162

Comment 2: Among the 422 records screened, were there patients who had recurrent NMPE who refused IPC, how did they fair subsequently?

Reply 2: No patient's refused IPC when offered, 3 patients opted for 3rd thoracentesis but still had recurrent effusions and eventually decided to undergo IPC insertion.

Comment 3: NMPE was mainly defined by a negative pleural fluid cytology. However, Some MPE may not be associated with positive malignant cells in fluid cytology. was PET scan included in workup of the causes of recurrent pleural effusion in the study cases?

Reply 3: PET scan was not used as part of the workup of the recurrent pleural effusions, only cytology was used, patient's continued to get repeated imaging (CT scans) as part of their ongoing treatment/surveillance plan.

Changes in text: Added more information on line 100

Comment 4: There were a few patients with lung cancer beyond stage 1b. were they treated with adjuvant anti-cancer treatment? Oncological treatment may prevent the emergence of recurrent malignant disease manifesting as pleural effusion.

Reply 4: Patients did undergo appropriate adjuvant treatment as per multidisciplinary tumor board.

Changes in text: Added more information on line 96-98

Reviewer C

A good article exploring the ever-expanding utility of indwelling pleural catheters. Initially designed mainly as palliative intent for malignant pleural effusions, we now see the use of IPCs in non-malignant pleural effusions with even studies now exploring the utility of intra-pleural chemotherapy delivery via IPCs.

This article looks into the use of IPCs in recurrent effusions post-surgery, which I think certainly is an area worth researching further.

The limitations of this study were clearly stated. A single-centre retrospective study with a very small study sample. However, certainly gets the ball rolling for potentially further studies in the utility of IPCs in thoracic surgery.

Few points to consider:

Comment 1: Remove table 1 and table 2. It is raw data that is worth summarizing.

Reply 1: Results summarized and table one redone to include demographics and results as well.

Changes in text: Table one changed, see line 153-154

Comment 2: (Line commencing from 127) Consider presenting the demographics and results in a table

Reply 2: Table one was redone to include demographics and result data

Changes in text: please see new table 1, lines 153-154

Comment 3: Remove Figure 2. The serial CT scan images don't seem to add much to the article

Reply 3: Figure 2 removed