Decortication of empyema

Sir,

We read with interest the article entitled, "video-assisted thoracoscopic decortication for the management of late stage pleural empyema, is it feasible?" by Hajjar *et al*. (January–March 2016, Volume 11, Issue 1).[1] First, how the authors evaluated the best timing of video-assisted thoracoscopic surgery (VATS) decortication of empyema? In the manuscript, many patients had leukocytosis due to the continuation of local inflammation at pleural space. We do fear whether the control of local inflammation is mandatory to perform the decortication. Second, we do appreciate hearing from the authors how preoperative evaluation with regards to "adhesion" of pleura

in imaging studies including computed tomography (CT) scan. Third, in decortication of empyema, massive hemorrhage would develop in some patients. In the manuscript, we could not find the description of hemorrhagic complication and blood transfusion after the decortication. We would like to ask the authors how about the hemorrhagic complication. Fourth, we do agree with the indication of VATS for the management of pleural decortication. Nutritional as well as cardiopulmonary condition would be the important clinical conditions to perform the procedure safely. Please let us know how the authors evaluate.

First, how the authors evaluated the best timing of VATS decortication of empyema? In the manuscript, many patients had leukocytosis due to the continuation of local inflammation at pleural space. We do fear whether the control of local inflammation is mandatory to perform the decortication.

Answer: Timing

For the decortication operation, which was done based on the duration of the symptoms, (natural body response of empyema in three phases, exudative up to 1 week (Stage I), fibrinopurulent 2–3 weeks (Stage II), and organizing more than 3 weeks (Stage III), representing a continuously evolving process that can be arrested by therapeutic intervention), and persistence of empyema cavity with thick pleural peel observed on radiological investigations. Failure of the control of the infection (with inflammation and leukocytosis) is one of the strong indications for surgical intervention.

Second, we do appreciate hearing from the authors how preoperative evaluation with regards to "adhesion" of pleura in imaging studies including CT scan.

Answer

Enhanced CT scanning of the chest and ultrasound of the chest are the main investigations to evaluate the loculations or complex pleural effusion, and the cortical thickness of pleura.

Third, in decortication of empyema, massive hemorrhage would develop in some patients. In the manuscript, we could not find the description of hemorrhagic complication and blood transfusion after the decortication. We would like to ask the authors how about the hemorrhagic complication.

Answer

We agree there can be excessive bleeding during decortication. Moreover, it is mentioned both in the manuscript and in the discussion.

In the manuscript, it is mentioned exactly as "however, only 12 cases (32.4%) required conversions to open (thoracotomy) drainage."

Moreover, in the discussion, it is mentioned as: "In this study, the major causes of conversion were hemorrhage in two patients."

One of the causes of conversion to open decortication was hemorrhage in our study. Hemorrhage was controlled surgically and also with blood transfusion during the procedure and after the procedure as required.

Fourth, we do agree with the indication of VATS for the management of pleural decortication. Nutritional as well as cardiopulmonary condition would be the important clinical conditions to perform the procedure safely. Please let us know how the authors evaluate.

Answer

Empyema thoracic is considered a surgical emergency. Therefore, all the cases were prepared as a surgical emergency procedure. This included a detailed history (including preoperative morbidity as DM, HTN, IHD, etc.,) and clinical examination. All necessary investigations were performed along with the assessments by the concerned specialties (endocrinologist, cardiologist, or the nephrologist as the case may be) and the anesthesiologist. The general condition of the patients was optimized according to the recommendations to make the procedure as safe as possible.

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Conflicts of interest
There are no conflicts of interest.

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Reference

1. Hajjar WM, Ahmed I, Al-Nassar SA, Alsultan RK, Alwgait WA, Alkhalaf HH, *et al*. Video-assisted thoracoscopic decortication for the management of late stage pleural empyema, is it feasible? Ann Thorac Med 2016;11:71-8.

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