eComment: Unexpected chylopericardium and its treatment after cardiothoracic operations
Murat Ugurlucan, Murat Basaran, Ali Kocailik and Melih H. Us
*Interact CardioVasc Thorac Surg* 2009;8:177-
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within the mediastinum via the right paratracheal lymph nodes and the left superior bronchial lymph nodes [7]. In addition, lymph drainage from the lateral and posterior aspects and the diaphragmatic surface of the pericardium has been shown to channel into various different groups of mediastinal lymph nodes including the juxta-oesophageal group [8]. It is therefore feasible that lymphatic drainage of the heart and pericardium was interrupted during the additional mediastinal dissection undertaken during the second surgical procedure, leading to the accumulation of chyle within the pericardium. Although it is thought that intra-thoracic lymphatic pathways are relatively constant [7], it is perfectly possible that a rarely encountered anatomical variant may have been the cause, which would explain the lack of precedent for this report.

References


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We read with interest the article by Stewart et al. [1] in which they present an unusual case of chyloous pericardial effusion following gastrointestinal surgery and the successful management of the patient.

Although chylothorax is a relatively common and known complication following various surgical interventions through thoracotomies, chylopericardium after intrathoracic surgery is rare. It increases postoperative hospital stay and expenses, leads to malnutrition and long-term parental nutrition, and patients may require invasive procedures for a definitive treatment [2].

Other than lymphatic drainage of the heart, lymph channels draining mediastinal pleura, parietal pericardium, pericardial fat and surrounding tissues unite at the lateral and posterior surfaces in the mediastinum. This anatomy should guide the physicians about pericardial fluid production as well as chylous pericardial effusions following surgical procedures interfering with the pericardium. Chylopericardium results from disruption of these channels during operation. Lymphatic fluid drainage usually occurs in the anterior mediastinum around the thymic tissue region; however, it may also ensue in the posterior mediastinum due to damage to the lymphoid structures posterior to the aorta [2]. We have recently reported a case of chylopericardium after open-heart surgery in whom the cause of the drainage was a lymphatic channel inside the mediastinum above the thymus [2]. When it occurs, dietary restriction (diet with medium-chain triglyceride content) and total parenteral nutrition are the first order treatment strategies for chylopericardium. Administration of somatostatin may decrease the amount of drainage. Explorative secondary surgery is the option for cases with chylopericardium lasting beyond three weeks. Very rarely the thoracic duct may be ligated from a lower level when explorative surgery is ineffective [2].

Once again we congratulate the authors for their interesting and challenging case. We believe their rapid management has been life-saving.

References

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