

INTRODUCTION

Pericardial effusion is abnormal accumulation of fluid within pericardial sac. Etiologies range from infections to malignancies. Effusions are classified based on size, duration, composition, and cause, often assessed using echocardiography.

Clinical presentations vary from asymptomatic to severe, including cardiac tamponade, which presents with hypotension, elevated venous pressure, and muffled heart sounds. Diagnostic tools include echocardiography, ECG, chest X-ray, CT, and MRI.

Management depends on effusion size and cause. Conservative treatment addresses underlying factors and may involve NSAIDs, colchicine, diuretics, antibiotics, and analgesics. Pericardiocentesis indicated for hemodynamic instability, large effusions, or unclear causes, but carries high risk of complications and recurrence rates.

U-VATS has emerged as a crucial advancement in managing recurrent pericardial effusion. The modified technique for pleuropericardial window creation entails suturing the pericardial edges to the chest wall. This prevents future adhesions, establishes a durable connection between the pericardial and pleural cavities thus significantly reduce the recurrence.

The procedure involved inspection of the thoracic cavity, drainage of pleural effusion if present, identification and opening of the pericardium, drainage of pericardial effusion, pericardial biopsy, and the creation of a pleuro-pericardial window. Anchoring the pericardium to the chest wall was done. A single chest tube was placed at the end of the operation. Follow-up was conducted for up to 3 months post-operatively to assess various criteria, with particular emphasis on pericardial specimen analysis and effusion recurrence.

RESULTS

The study involved middle-aged patients, primarily females, who presented with dyspnea. Surgical procedures, typically lasting around 64 minutes, were successful in managing pericardial effusion, with no complications or recurrences within the short-term follow-up period.

Table 2: Post-operative parameters

Parameter	
Intercostal tube duration (days)	3.8 ± 1.1
Hospital stay (days)	5.2 ± 1.3
Specimen positive for malignancy	5 (50%)
Recurrence at 3 months (of 8 alive)	0 %

CONCLUSION

-The modified technique for pleuropericardial window creation, which involved suturing the free edge of the pericardium to the chest wall endothoracic fascia using Uni-portal Video-assisted thoracoscopic surgery approach, aimed to enhance the stability and longevity of the pleuropericardial window which was found to be reliable and effective in reducing the recurrence rate of pericardial effusion.

Table 1: Operative parameters

Parameter	
Right sided approach	5 (50%)
Operative time (minutes)	64.2 ± 4.8
Operative pleural drainage (ml)	1200 ± 350
Operative pericardial drainage (ml)	850 ± 124.7

AIM OF THE WORK

The aim of this work was to evaluate Alexandria University technique for doing pleuropericardial window using uni-portal video-assisted thoracoscopic surgery

PATIENTS AND METHODS

We carried out a prospective analytic study included 10 patients presented with recurrent pericardial effusion. Patients underwent thorough preoperative preparation. The surgery was performed under general anesthesia with single lung ventilation, and a single incision of 4-5 cm was made in the 4th or 5th intercostal space.