

Autologous Reflected Pericardial Flap Coverage of Post-Resection Bronchial Stump Was it Effective in Preventing Broncho-Pleural Fistula in Children

Background: Postoperative broncho-pleural fistula (BPF) is a major surgical complication that may be life-threatening in some cases. Many prophylactic surgical techniques were claimed. However, the best method to be used is not yet settle

Objective: In this study, we investigated the efficacy and safety of an autologous reflected pericardial flap in protecting against such a serious condition in the pediatric population.

Patients and Methods: Between January 2018 and June 2023, 202 patients who underwent lung resection surgery for congenital and/or infective causes at Kasr Al-Ainy and Fayoum University Hospitals were divided into two groups: group A (104 patients with no coverage techniques) and group B (98 patients with pericardial flap coverage).

Results: Over the mean follow-up duration (21.02±9.76 months), postoperative air leakage occurred in 10 patients. 9 (8.82%) of which belonged to group A, and only 1 diabetic patient (1.02%) was among the coverage method group that denoted a statistically significant difference (P value = 0.0116). Postoperative hospital stays and need for reintervention were also significantly lower in group B (2.02 ± 0.60) vs. group A (6.13 ± 1.65) and 8 patients needed intervention in group A vs. 1 patient in group B, with a p value < 0.05).

Conclusion: In-hospital results of bronchial stump covering with pericardium were favourable in terms of postoperative morbidity and mortality, indicating its efficacy and safety in preventing postresection bronchial stump dehiscence.