

Pericardial flap: an effective method of surgical repair of late post-pneumonectomy fistula.

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Abstract:

BACKGROUND: We report our experience with the surgical closure of late post-pneumonectomy bronchopleural fistula (PBF) using our own method of coverage of the bronchial stump: Pedicled pericardial flap in combination with fibrin glue.

METHODS: We reviewed the surgical results of 33 patients who underwent surgical closure of PBF by thoracotomy access using three methods: Myoplasty (MYO)-12, omentoplasty (OMT)-10, and pedicled pericardial flap (PPF) with fibrin glue-11. Post-operative follow up was six months.

RESULTS: The patients' demography was comparable among the groups. The diameter of the fistulas ranged from 5mm to total dehiscence. The mean time of the fistula manifestation (in weeks) was 21.5 in the MYO group, 19.50 in the OMT, and 20.1 in the PPF group. The shortest period of hospital drainage of the pleural space was noted in the PPF group. Healing of the fistula was obtained in 66.67% in the MYO group, 80% in the OMT, and 100% in the PPF group. The number of complications was similar in all groups. The hospitalization time was significantly shorter in the PPF group (13.00 d) versus the MYO group (19.58 d) and the OMT (20.01 d). Overall mortality rate was 18.18%; 33.33% of the patients in the MYO group and 20% in the OMT group died. There were no hospital deaths in the PPF group.

CONCLUSION: Pericardial flap supported by fibrin glue can be an effective method adjunctive to the

treatment of postpneumonectomy PBF in selected patients. Compared with other methods of bronchial stump coverage (omentopasty and myoplasty), this one showed a higher percentage of healing of the fistulas and shorter duration of hospital drainage and hospitalization.