

MEETING ABSTRACT

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The use of Tissue Patch™ to Reduce the Duration of Air Leak Following Lung Volume Reduction Surgery.

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Background/Introduction

Prolonged post-operative air leak is a recognised complication in patients receiving lung volume reduction surgery (LVRS). Some patients are transferred to a portable flutter-valve bag to facilitate discharge. TissuePatch™ is a synthetic absorbable self-adhesive film which acts as an adjunct to minimise air leak.

Aims/Objectives

Our aim was to see whether the use of TissuePatch™ would reduce post-operative air leak and the subsequent need for a drain in LVRS patients.

Method

We retrospectively analysed LVRS cases over a two year period performed by a single surgeon to minimise procedural heterogeneity. Patients were divided into two groups; group 1 received Tissue Patch™ as the staple line adjunct and group 2 did not.

Results

There were 26 cases in total (one excluded due to in hospital death); group 1=12 (2= bilateral procedures, 10=upper lobe procedures, median age 65), group 2=13 (all unilateral, all upper lobe procedures, median age 63). The median length of stay was 15 for both groups ($p = 0.40$). The median duration of air leak was 13 days for group 1 and 18 days for group 2 ($p = 0.95$). Only 2/12 (16%) in group 1 did not have full resolution of air leak and drain removal prior to discharge and were placed on a portable flutter-valve bag compared to 5/13 (38%) in group 2 ($p = 0.64$).

Discussion/Conclusion

We have observed a reduced trend in the number of patients being discharged with persistent air leak following LVRS with the concomitant use of Tissue Patch™. A larger study is indicated which may demonstrate significant results.

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