9.16 The Effects of a Low Suction Strategy using Digital Chest Drainage Devices after Lung Resection Surgery

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Background: A low suction strategy on digital chest drainage devices after lobectomy reduces chest drain duration. Our cardiothoracic unit has typically used -0.8 to -2.0 kPa suction following lung resection. We aimed to change the practice in our unit and assess if this reduced time until chest drain removal.

Methods: Data was collected for lung resection operations for approximately 3 months pre- and post-intervention, including: operation details, level of suction, and duration of chest drainage (days to last drain removed). Low suction was defined as -0.4kPa and high suction => 0.8kPa. Patients were excluded (n=9) if a digital drain was not used, no lung tissue was resected, or the level of suction crossed over between the two groups.

Results: The high suction group consisted of 20 patients, with 16 undergoing lobectomy and 4 wedge resections; the low suction group had 15 patients - 9 lobectomy and 6 wedge resection/ segmentectomy. Mean time to drain removal was 2.55 vs 2.33 days for high and low suction groups respectively.

Conclusion: Chest drain duration reduced after intervention, confirming low suction to be a safe and non-inferior strategy.

Key words: Air leak, Digital drain.

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