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Case Study:
SUCCESSFUL VENTILATOR WEANING – LOVINGS

THE USE OF CONTINUOUS HIGH-FREQUENCY OSCILLATION

to reverse atelectasis post-abdominal aortic aneurysm repair surgery

OVERVIEW

Report of a 75-year-old man presenting with abdominal pain and undergoing repair surgery for an abdominal aortic aneurism (AAA).

75 year-old male with abdominal aortic aneurism

PATIENT TIMELINE

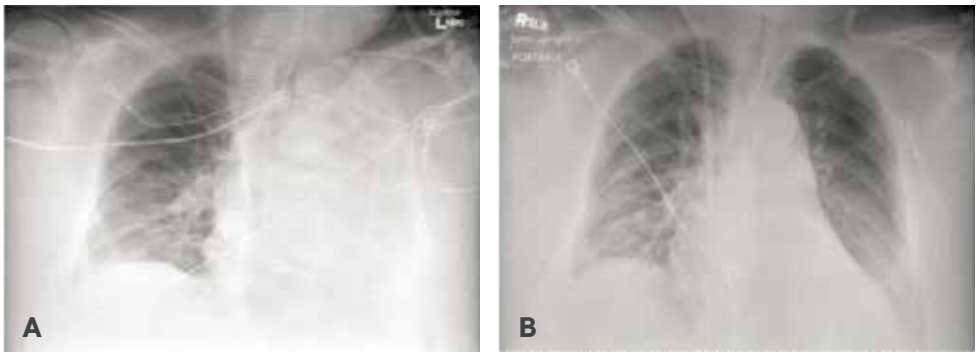
HISTORY	Comorbidities include Type 2 diabetes, obstructive sleep apnea, chronic kidney disease, hypertension and previous AAA repair.
POST-OP DAY 2	Developed acute renal failure.
DAY 6	▪ Worsening respiratory status with nocturnal desaturation. ▪ Chest X-ray (CXR) showed large collapse of left lung and markers consistent with atelectasis secondary to mucous plugging. ▪ The MetaNeb® System delivered oscillation and lung expansion (OLE) therapy initiated via in-line ventilator circuit using 0.9% normal saline for 10 minutes 3x daily at 2100, 2200 and 2300.

OUTCOMES

DAY 6	3 hours after initiation of OLE therapy with The MetaNeb System, repeat CXR showed markedly improved aeration of left lung, and complete resolution of collapse.
DAY 7	▪ Ventilator settings were weaned to pressure support mode. ▪ Patient was saturating well and hemodynamically stable on Levophed.

EVIDENCE

A. Post-op Day 6 CXR at 2030, Pre-MetaNeb® System OLE Therapy
B. Post-op Day 6 CXR at 2345, Post-MetaNeb System OLE Therapy (3 treatments)



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For more information, please contact your Hillrom sales representative at 1-800-426-4224.

respiratorycare.hill-rom.com

References
[1] Lovings T, Sweet M. The use of continuous high frequency oscillation to revers atelectasis post-abdominal aortic aneurysm repair surgery. Respiratory Therapy. 2016;11④:55.