

VersaPAP® Therapy Overcoming Patient Tolerance Challenges in Coronary Artery Surgery

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INTRODUCTION

Patient tolerance remains a critical factor in successful positive airway pressure therapy implementation to reduce atelectasis and post-operative pulmonary complications (PPCs) following cardiovascular surgery. VersaPAP® therapy offers intermittent, targeted therapy that may improve patient acceptance compared to continuous modalities but still requires education and coaching.

This case demonstrates successful adaptation strategies when initial patient discomfort threatens therapy compliance.



CASE DESCRIPTION

Patient Profile:

- Age/Sex: 46-year-old female
- Condition: Myocardial bridge (LAD) with chronic chest pain

Cardiac Diagnosis:

- Myocardial bridge of the left anterior descending artery
- Symptomatic with persistent chest discomfort

Surgical Intervention:

- Median sternotomy
- Unroofing of myocardial bridge

Immediate Post-Operative Status:

- Extubated at 1500 hours
- Chest X-ray: Bilateral lower lobe atelectasis

Respiratory Therapy Plan:

- Early initiation of VersaPAP® therapy
- Goal: Prevent post-operative pulmonary complications

Clinical Challenges:

- Chest pain during therapy
- Limited initial sessions to 4 minutes
- Reduced patient compliance risk
- Balancing effective lung expansion therapy with patient
- Comfort in the immediate post-operative period.

IMMEDIATE POST-OPERATIVE IMAGING

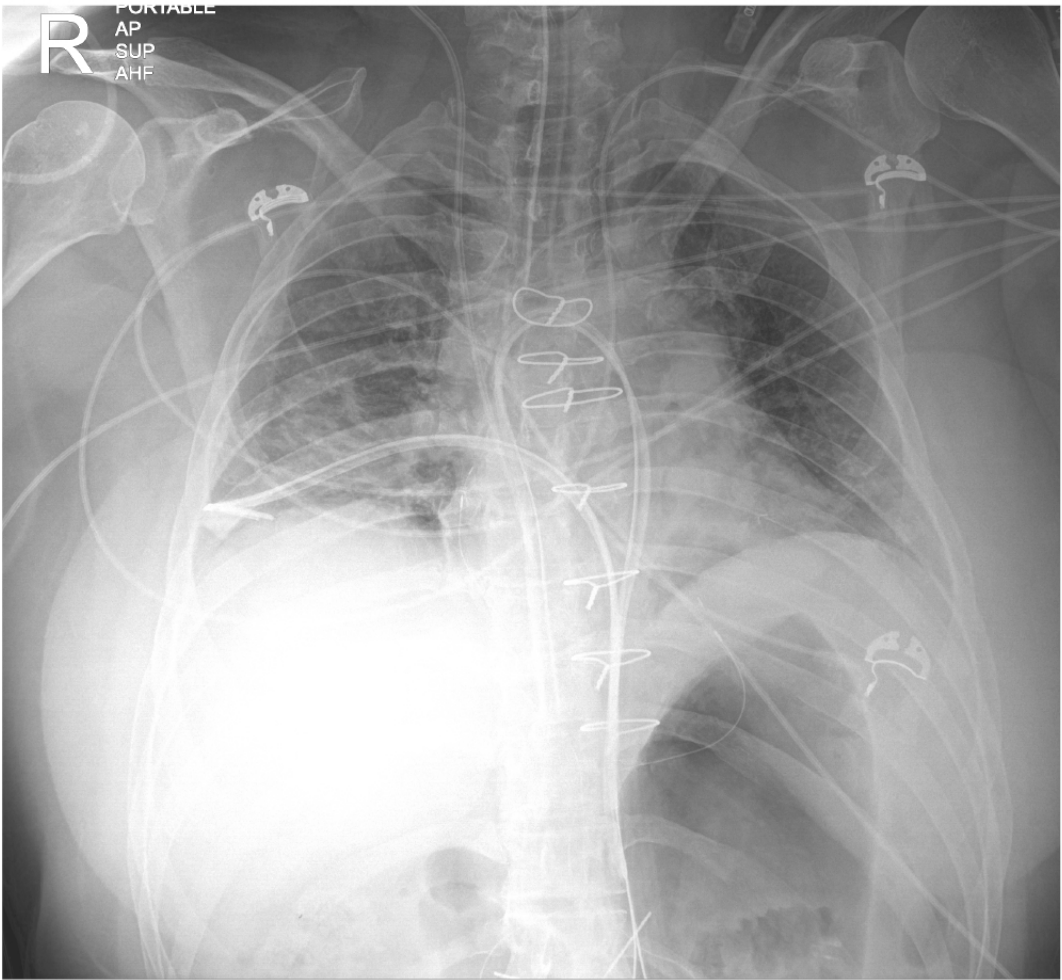


Figure 1: Immediately post-op chest radiograph with bilateral lower lobe atelectasis.

POST-THERAPY IMAGING

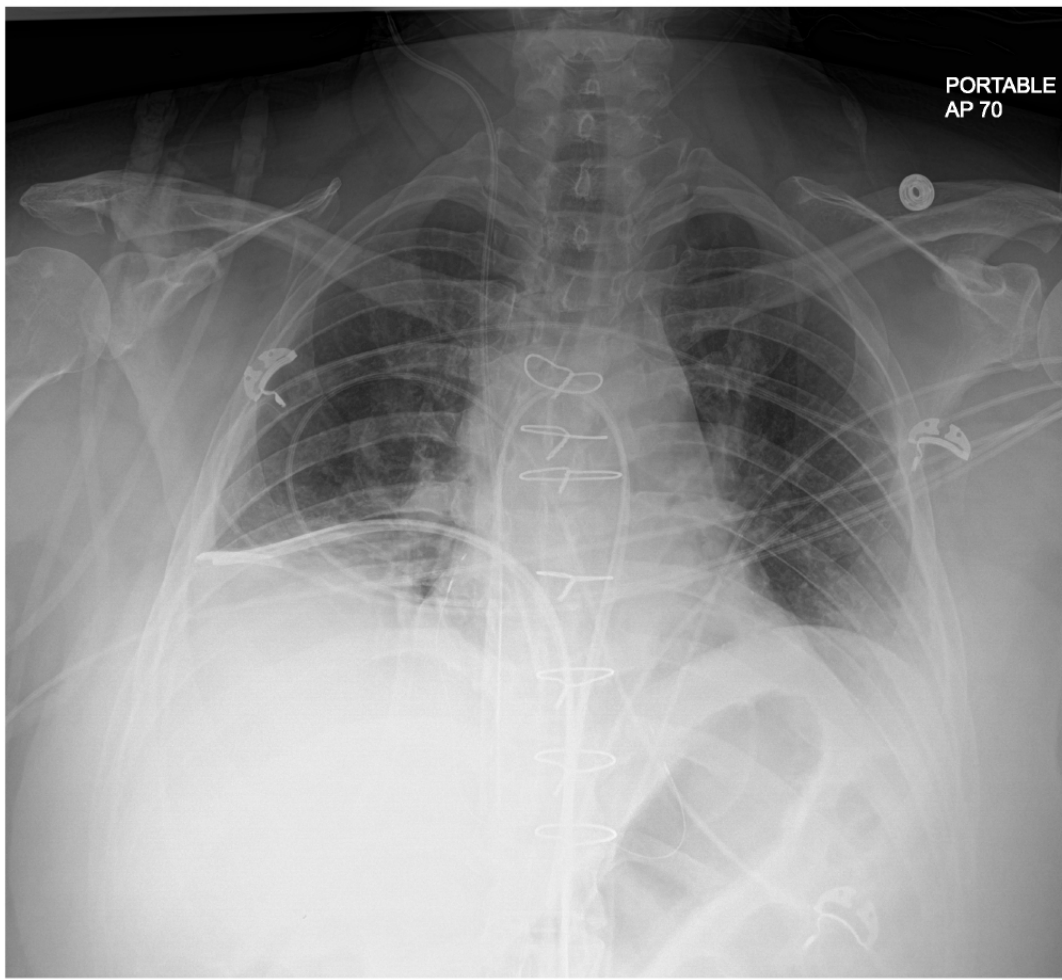


Figure 2: POD 2 radiograph after incremental VersaPAP® therapy showing improved lower lobe aeration.

DISCUSSION

This case highlights the importance of a skilled respiratory therapy team and individualized VersaPAP® implementation strategies.

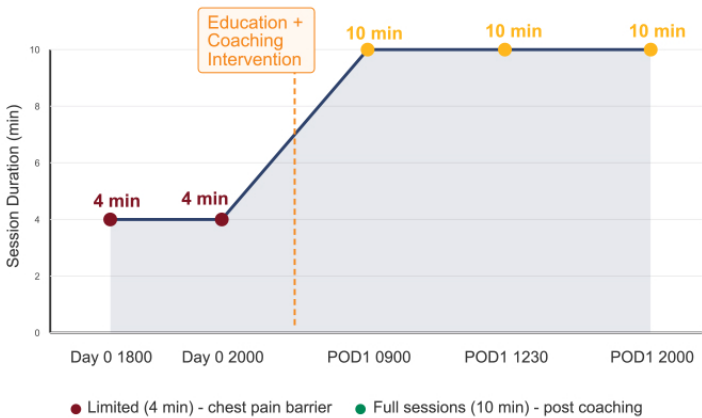
Initial patient intolerance due to chest pain could have resulted in therapy discontinuation and potential respiratory complications. The successful adaptation approach, involving patient education and gradual session lengthening, enabled full therapeutic benefit.

The radiographic evidence of atelectasis resolution within 24-48 hours validates the clinical efficacy even with modified initial dosing.

This case supports flexible VersaPAP® protocols that prioritize patient comfort while maintaining therapeutic goals, potentially improving overall therapy acceptance and clinical outcomes.

Therapy Progress Chart

VersaPAP® Session Duration Over Time



Patient Tolerance Curve

Conceptual comfort and tolerance across VersaPAP® sessions

