

中文題目：一位老年患者於正壓呼吸器困難脫離過程中新診斷之線粒體疾病

英文題目：Newly diagnosed Mitochondrial disease in an elder patient during noninvasive positive pressure ventilators (NIPPV) difficult weaning

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## Introduction

Mitochondrial disease is a result of dysfunction of the mitochondrial respiratory chain, can also present at any age, and may involve multiple organ systems, and often presents with prominent neurologic and myopathic features. Herein, we reported an elder patient of acute respiratory failure. Muscle weakness was noted during noninvasive positive pressure ventilators (NIPPV) difficulty weaning, and was eventually diagnosed to be Mitochondrial disease.

## Case Report

A 70-year-old female without any systemic history before. At the beginning she presented with progressive general weakness, poor intake for days, and body weight loss. Initially she was admitted due to urinary tract infection. Dyspnea and desaturation were noted after a choking episode. She was intubated and admitted to Intensive Care Unit (ICU).

Pneumonia was improving and extubation was performed after 5 days. However, followed by dyspnea and tachycardia, noninvasive positive pressure ventilators (NIPPV) was used. Her consciousness was clear and presented with four limbs muscle weakness. Easy carbon dioxide retention (CO<sub>2</sub>) once off noninvasive positive pressure ventilators (NIPPV) in the following days. Several differential diagnosis should be considered (critical illness myopathy, drug-induced myopathy, autoimmune(polymyositis (PM), dermatomyositis (DM)), paraneoplastic syndrome etc.). We checked autoimmune diseases marker and tumor marker, which both reported negative finding.

She was transferred to our respiratory care center (RCC) for further weaning treatment. Brain Magnetic Resonance Imaging (MRI) excluded intracranial lesion. Lung function test showed suspected restrictive ventilatory defect. Neurologist suggested Musculoskeletal Computed Tomography (CT) of which reported mild muscular atrophy with fatty degeneration of bilateral gluteal regions. Further muscle biopsy suggested mitochondrial disease should be considered first.

She was eventually transferred to RCW (Respiratory Care Ward) for night noninvasive positive pressure ventilators (NIPPV) use.