中文題目: 慢性血栓栓塞性肺動脈高壓的肺動脈氣球擴張術治療

英文題目: Balloon Pulmonary Angioplasty in Chronic Thromboembolic Pulmonary Hypertension 作 者:朱俊源<sup>1,2,3</sup>,李文賢<sup>1,2,3</sup>,許栢超<sup>1,2</sup>,李弘昊<sup>1</sup>,邱正安<sup>1</sup>,蘇河名<sup>1,2</sup>,林宗憲<sup>1,2</sup>, 李智雄<sup>1,2</sup>,顏學偉<sup>1,2</sup>,溫文才<sup>1,2</sup>,賴文德<sup>1,2</sup>,許勝雄<sup>1,2</sup>

服務單位:<sup>1</sup>高雄醫學大學附設中和紀念醫院心臟內科<sup>2</sup>高雄醫學大學醫學院醫學系內科學 科<sup>3</sup>高雄醫學大學醫學院臨床醫學研究所

## Abstract:

A 55-year-old female with a prior history of hypertension, pulmonary embolism and old stroke was diagnosed as chronic thromboembolic pulmonary hypertension (CTEPH) in May 2015 with a V/Q scan (Tc99m DTPA aerosol ventilation scintigraphy) showing residual segmental perfusion reduction in the right middle lobe and partial right lower lobe related prior embolism. Right heart catheterization revealed that mean pulmonary artery pressure was 57mmHg and pulmonary angiogram demonstrated right middle and lower pulmonary artery filling defect while the coronary angiogram showed normal results. The initial Six-Minute Walk Test (6MWT) was performed with a value of 226 meters only. We had consulted cardiovascular surgeons for assessment of pulmonary endarterectomy but an inoperable condition was told. Then medical treatment with riociguat (a direct stimulator of sGC, which increases intracellular cGMP, and inhibits endothelial dysfunction and vascular remodeling) was used.

However, exertional dyspnea with unstable peripheral oxygen saturation (SpO<sub>2</sub>) was still mentioned. Therefore, balloon pulmonary angioplasty (BPA) was performed successfully for the occluded right lower pulmonary artery in Oct 2016 without procedures-related injury or reperfusion-related injury. Follow-up Pulmonary angiogram showed patent right lower pulmonary artery with a decreased pulmonary artery pressure (40 mmHg). Otherwise, much improvement in exertional dyspnea and SpO2 decrease was also found after 1<sup>st</sup> BPA. Till now, 6MWT shows progressive improvement and she has a good quality of daily life.

## **Conclusions:**

BPA is recommended to be performed in CTEPH center seeking maximum effects and minimum complications with tolerable invasiveness under global assessment by CTEPH multidisciplinary team.