

## LONG-TERM EFFICACY OF RIOCIGUAT IN PATIENTS WITH CTEPH: A SINGLE-CENTRE, REAL-LIFE RETROSPECTIVE ANALYSIS

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Objective:

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Riociguat is one of the treatment options for patients with inoperable chronic thromboembolic pulmonary hypertension (CTEPH). This study aimed to determine the long-term efficacy and safety of riociguat in patients with CTEPH in clinical practice.

Methods:



## **Methods**

This is a retrospective, observational, non-comparative case study for the period from June, 2016 to December, 2022. WHO functional class (WHO-FC) and NT-proBNP levels were recorded at baseline and each year of follow-up.

Result:

**Results** 

Out of 46 patients treated with riociguat, 41 are still on treatment, 2 are lost to follow-up, while 3 died from causes unrelated to the drug. The number of patients, follow-up duration (y), and mean change in NT-proBNP from baseline are displayed in Table 1. Riociguat treatment significantly impacted NT-proBNP levels over time (Wilk's  $\Lambda$ = 0.55, F(3,14)=3.74, p=0.037). Levels significantly decreased at year 1 (t[16]=2.22, p=0.041), but the effect was lost by the year 4 (t[16]=-2.99, p=0.009). According to WHO-FC, patients seem to improve and remain stable up to year three. Riociguat was well tolerated, there were no significant side effects and no patient discontinued therapy due to adverse events.

**Conclusion:** 

Conclusion



Riociguat showed good tolerability and long-term effect on WHO-FC and NT-proBNP in our heterogeneous cohort of CTEPH patients. Still, it seems that the effect lessens after three years of treatment. Additional studies are needed to elucidate this observation.