

SILDENAFIL MONOTHERAPY AS A POSSIBLE TREATMENT OPTION FOR PATIENTS WITH INOPERABLE CHRONIC THROMBOEMBOLIC PULMONARY HYPERTENSION

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Objective:

Sildenafil is an off-label treatment for patients with inoperable chronic thromboembolic pulmonary hypertension (CTEPH). Randomised controlled trials of sildenafil treatment in CTEPH patients failed to demonstrate benefit in 6-minute walk test (6MWT) results. Our aim was to investigate long-term efficacy of sildenafil in inoperable CTEPH patients.

Methods:

This retrospective observational study was conducted from October 2009 to January, 2023. 6MWT and WHO functional class (WHO FC) were parameters we noted at baseline and at the end of each therapy year.

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Result:

We included 15 (6 female, age 64.5±7.9) inoperable CTEPH patients being treated with sildenafil of which 8 are still in therapy. 6 were lost to follow-up and 1 died due to causes unrelated to the drug. None of the patients discontinued the drug due to adverse effects. We observed improvement in average 6MWT result changes from the baseline (Table 1) that remained positive after 4 years of follow-up. After the first year of therapy, 5 patients had improvement in WHO FC, 10 remained stable, while none worsened (33.3%/66.7%/0%). After year 4 of therapy, of 11 patients still receiving sildenafil, 6 patients showed improved WHO FC, 5 remained stable and none worsened compared to baseline (54.5%/45.5%/0%).

Conclusion:

Sildenafil monotherapy improves exercise capacity and may delay clinical worsening although being an off-label therapy. Limitation of this study is small number of patients and further investigations are needed.