

Experience of Epoprostenol Infusion in Patients with Right Heart Failure Secondary to Pulmonary Hypertension

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Objetive

To describe the clinical characteristics of patients undergoing to Epoprostenol therapy for the treatment of right heart failure secondary to pulmonary hypertension.

Methodos

Retrospective cohort of patients admitted to the emergency room because of right heart failure secondary to pulmonary hypertension between jan 2011 to oct 2015. Adults older than 18 y with epoprostenol infusión during the index hospitalization where included. Data were extracted from the pulmonary hypertension registry (SHIP) of a high complexity institution in Colombia.

Discussion

Thirty-one patients with pulmonary hypertension and right heart failure were included of whom **77% were women**. The average age was 44.5 y. The most common cause of pulmonary hypertension was **congenital heart disease (25.8%)**, followed by **idiopathic and chronic thromboembolic disease, both with 22.5% (7/31)**. The average mean pulmonary arterial pressure was **62.0mmHg (SD ± 18.6)** and pulmonary wedge pressure **18.5 (SD ± 11.8)**. The most common symptom was **dyspnea in 48.3% (n = 15)** and 30/31 have **NYHA III/IV (96.7%)**. On physical examination, 12 patients (38.7%) had edema of lower limbs, 6(19.3%) jugular ingurgitation and 6 (19.3%) pulmonary edema. The median **NT proBNP was 2451 pg/ml**, PO2 59 mmHg and PCO2 was 32 mmHg. 16.1% of patients had hemoglobin ≤12g/dl and only one patient had hyponatremia (3.2%). **The ejection fraction of the left ventricle was 59.55 ± 15%**. There were an average of **302 hours of infusion of Epoprostenol** (interquartile range [IQR] 158-687) and the maximum tolerated dose achieved was **7.65 ± 2,78ng/k/min**. There were **7 early deaths** related to pulmonary hypertension (22.5%). Only 4 patients (**12.9%**) required ambulatory infusion **pump Epoprostenol**.

Conclusion

Epoprostenol was useful for the management of right heart failure in patients with pulmonary hypertension, however mortality remains to be high because of de underlying disease.

Clinical Implications

The Epoprostenol is a synthetic prostacyclin administered by continuous infusion, was the first approved therapy for the management of severe pulmonary hypertension, currently there are a lot of alternatives for long-term management before deciding to establish Epoprostenol, but this drug is still a very good alternative for the management of acute right failure patient who subsequently other medicines are established¹. In our series they continued with Epoprostenol 4 patients on an outpatient basis.

Bibliography

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