Abstract

Background: acute respiratory distress syndrome is characterized by inflammatory lung damage causing pulmonary edema, hypoxemia, and reduction of compliance. The treatment used is protective ventilation. Objective: to use the exogenous surfactant (surfacen) as a treatment strategy along with the conventional ventilation therapy. Clinical case: the case of a sixteen-month patient with the diagnosis of intrauterine tuberous sclerosis who is admitted in the intensive care unit at Eduardo Agramonte Piña Pediatric Hospital is presented. The patient was diagnosed, by means of her clinical picture, radiology and gasometry studies with the acute respiratory distress syndrome resultant from direct pulmonary causes. The treatment of conventional ventilation therapy was applied and the patient was administered exogenous surfactant (surfacen); three daily instillations of 100 mg every eight hours were administered for three days. Clinical, gasometrical, and ventilation controls were made an hour and then eight hours after the instillation of the medicine; a radiological monitoring was made at the first, second, third, fifth, and tenth day of the treatment. The ventilation began to be applied with an oxygenation index of 43.1 mm Hg, the pulmonary compliance of 3.5 ml/cm H2O and a Kirby index of 51 mm Hg and. On the fifth day of treatment, there was a significant improvement on these variables: oxygenation index of 2.9 mm Hg, pulmonary compliance of 5.8 ml/cm H2O, and Kirby index of 493 mm Hg. The radiography revealed a clear improvement after every day of evaluation. On the tenth day the mechanical ventilation was taken away and the patient kept a good subsequent evolution.

Conclusions: the application of exogenous surfactant along with the conventional therapy improved oxygenation and pulmonary compliance, and allowed a quick radiographic evolution of the patient.

Keywords

RESPIRATORY INSUFFICIENCY; BLOOD GAS ANÁLISIS; PULMONARY SURFACTANTS; CHILD; CASE STUDIES.