Category :**Respiratory: monitoring**

A66 - ***Diaphragmatic ultrasound in difficult weaning: monitoring of sbt***

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Introduction:

Faced with a patient with difficult weaning, we must evaluate all the factors involved. Diaphragmatic dysfunction, due to injury or atrophy, plays a key role in these patients, so it is important to carry out an adequate assessment, for this we can use diaphragmatic ultrasound, which is a useful, non-invasive tool available at the bedside.

Methods:

We evaluated a 62-year-old patient with a history of hypertension, DM2 and obesity (BMI> 30) who was admitted to the ICU due to severe acute respiratory failure due to SARS-Cov2 requiring ECMO support with good evolution, currently in the weaning phase of respiratory support Percutaneous tracheostomy was performed due to difficult weaning. She is stable at the hemodynamic and respiratory levels, with a good level of consciousness (RASS 0), adequate cough, but with significant paresis due to prolonged mechanical ventilation. We monitor diaphragmatic mobility through ultrasound during the weaning process. Diaphragmatic ultrasound is performed at the level of the right hemithorax, at the 7-8th rib in the mid-axillary line. We monitor diaphragmatic mobility through diaphragmatic excursion.

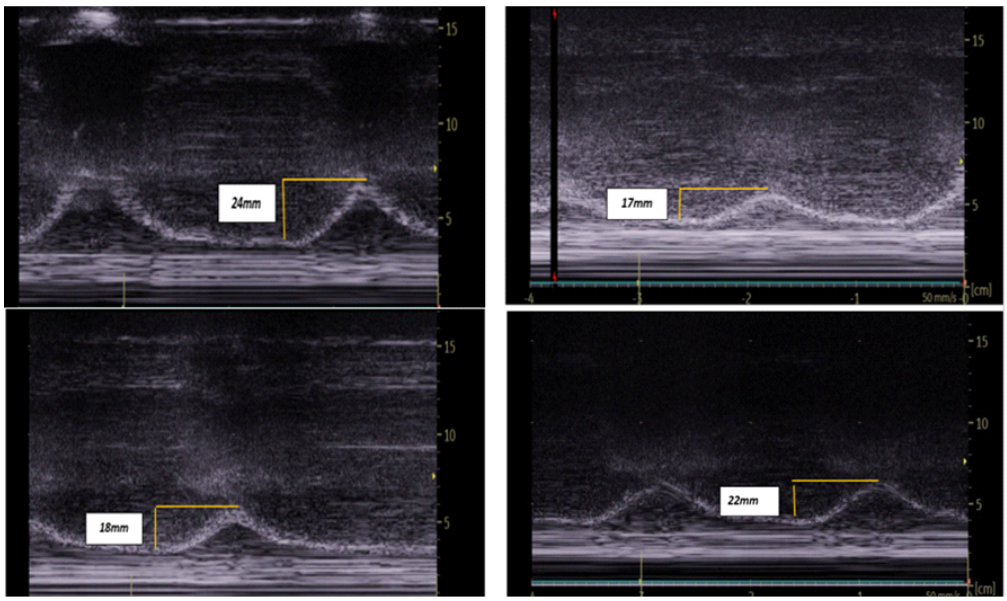
Results:

We started a SBT in CPAP 8cmsH2O for 60 minutes, measurements were made after 30 minutes showing a diaphragmatic excursion between 22-26mm. Subsequently, we removed the ventilator and switched to a humidifier with 50% FiO2, we performed a new ultrasound control after 30 min, presenting a diaphragmatic excursion between 18 - 22mm. After 4 hours, the patient begins to be fatigued, with use of accessory muscles, although he maintains SpO2 98%. We repeat ultrasound, presenting a 16-17mm diaphragmatic excursion. We again connected in PS 10cmsH2O over 6cmsH2O PEEP FiO2 40%, after 60 min we repeated the ultrasound control again, presenting a diaphragmatic excursion between 20 - 24mm.

Conclusion:

Monitoring of diaphragmatic mobility by ultrasound is useful and simple, it is a tool to consider in patients with difficult weaning

Image :



A) CPAP 8cmsH2O FiO2 40% 30 minutes B) Traqueal Mask Oxygen FiO2 50% 30 minutes C) Traqueal Mask Oxygen FiO2 50% 4 hours D) Support Pressure 10/6 PEEP FiO2 40% 30 minutes