How I manage ARDS

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Abstract

Artificial invasive mechanical ventilation is the type of organ support most widely provided in the intensive care unit. In addition to provide adequate gas exchange and reduce the work of breathing it can be associated to several pulmonary and extrapulmonary damages that have been called ventilator induced lung injury. Several decades of experimental and human studies showed that mechanical ventilation when applied with high volume, elevated respiratory rate and no PEEP can damage the lung. Starting from these data a form of more protective mechanical ventilation, has been suggested and recommended. The principles suggestions includes the use of a low tidal volume, adequate PEEP levels, the use of prone position and muscle relaxant in the early phase of the disease. In addition to use low tidal volume has also been suggested to apply a driving pressure lower than 15 cmH2O and in case of severe ARDS the use of extracorporeal support.