Unexpected Acute Respiratory Failure following Administration of Rocuronium Bromide during Cesarean Delivery in a Severely Preeclamptic Parturient Treated with Magnesium Sulfate

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Abstract : Magnesium sulfate has been a mainstay in the management of preeclampsia and is associated with a decreased incidence of morbidity and mortality. The syndrome has an unpredictable course, sometimes rapidly evolving to full-blown disease. In patients with deteriorating status, it is indicated to terminate the pregnancy via cesarean section. The anesthesiologists would prefer to have the procedure done under regional anesthesia; however, there may be cases when neuraxial anesthesia is contraindicated, or a general anesthesia would permit prompt delivery of the fetus. A patient with severe preeclampsia was given magnesium sulfate intrapartum, wherein a primary cesarean section was indicated for arrest in cervical dilatation, and was performed under general anesthesia. The patient developed acute respiratory failure and the causes of this occurrence were investigated in this report. It was later found out that neither the hypermagnesemia nor the muscle relaxant alone caused the patient's condition but the interaction between the two. The patient was managed expectantly at the intensive care unit (ICU) and was eventually extubated during the 1st post-operative day. Knowledge of this drug interaction would allow obstetricians to advise their patients and their family about the possibility of prolonged intubation and ICU admission. This would also bring to the anesthesiologists' attention the need to decrease the dose of muscle relaxant and to prepare drugs for immediate decurarisation.

Keywords: eclampsia, magnesium sulfate, preeclampsia, rocuronium bromide

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