

THE EFFECT OF PRONE POSITION VERSUS SUPINE POSITION ON OXYGEN SATURATION AMONG JORDANIAN PRETERM WITH RESPIRATORY DISTRESS SYNDROME

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ABSTRACT

The prone position for preterm neonates had been playing an important role to improve physiological statuses for respiratory distress syndrome diseases. Prone position correlates with improvement of diaphragmatic movement or pulmonary perfusion, especially in preterm neonates. Objective: To assess the oxygen saturation on Jordanian preterm neonates with respiratory distress syndrome, during prone position comparing to supine position. Method: This pilot study is conducted with randomized clinical trial of thirty preterm neonates (age < 28days of gestations) in nursery ward at Queen Rania hospital during two months from 25 July-25 September 2015. Supine - prone cycle was applied for one time, where preterm were placed first in supine position for total 2 hours, which then followed by prone position for 2 hours. Oxygen saturation was measured at 30 minutes intervals, corresponding to 8 samples for 4 hours. The data were recorded using the pulse oximeter by same staff nurse. Results: At the end of the last 2 hours of supine position, O₂ saturation mean & SD was noted as (96.3 + 1.5) and at the end of last hour on prone position was (98.53 + 1.506). Independent sample t test revealed that there are significant differences between prone and supine position on this duration time, the result showed O₂ saturation in prone position significant ($t = 4.35, P < 0.05$), (CI: 0.85-0.95). Conclusion: The prone position showed an effect on preterm babies diagnosed with respiratory distress syndrome diseases, comparing to the supine position. This maneuver considers safe method that decreases the complication in respiratory distress syndrome diseases on preterm neonates.

KEYWORDS: *Respiratory Distress Syndrome; Preterm; Prone Position*

What The Researchers Know?

- *Effective prone position showed an enhancement not only on the respiratory status or peripheral O₂ saturation and arterial blood gases, it also promotes heart rates and had showed greater sleep efficiency and fewer obstructive sleep apneas.*
- *Effect of prone positions duration on oxygen saturation is still controversial.*

What This Study Add?

- *Prone position for 2 hours duration had an effect on preterm neonates diagnosed with respiratory distress syndrome comparing that to supine position, even many studies showed the need of at least four hours to show this effect.*
- *Body positions of preterm neonate with mechanical ventilation are effective in any period of time as opposed to Studies that showed the early placement of preterm on prone position that had greater effect on O₂ saturation.*

Article History

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