

## Effect of Foot Reflexology Treatment on Arterial Blood Gases among Mechanically Ventilated Patients

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**Abstract :** Reflexology treatment is a method for enhancing body relaxation. It is a widely recognized as an alternative therapy, effective for many health conditions. This study aimed to evaluate the effect of reflexology treatment on arterial blood gases among mechanically ventilated patients. A quasi-experimental (pre and post-test) research design was used. Research hypothesis was mechanically ventilated patients who will receive the reflexology treatment will have improvement in their arterial blood gases than those who will not. The current study was carried out in different Intensive Care Units at the Cairo University Hospitals. A purposeful sample of 100 adults' mechanically ventilated patients was recruited over a period of three months of data collection. The participants were divided into two equally matched groups; (1) The study group who has received the routine care, in addition, two reflexology sessions on the feet, (2) The control group who has received only the routine care. One tool was utilized to collect data pertinent to the study; mechanically ventilated patients' data sheet that consists of demographic and medical data. Result: Majority (58% of the study group and 82% of the control group) were males, with mean age of 50.9 years in both groups. Patients who received the reflexology treatment significantly increase in the oxygen saturation pre second session ( $t=5.15$ ,  $p=.000$ ), immediate post sessions ( $t=4.4$ ,  $p=.000$ ) and post two hours ( $t= 4.7$ ,  $p= .000$ ). The study group was more likely to have lower PaO<sub>2</sub> ( $F=5.025$ ,  $p=.015$ ), PaCo<sub>2</sub> ( $F=4.952$ ,  $p=.025$ ) and higher HCo<sub>3</sub> ( $F=15.211$ ,  $p=.000$ ) than the control group. Conclusion: This study results support the positive effect of reflexology treatment in improving some arterial blood gases among mechanically ventilated patients' with the conventional therapy as in the study group there was increase in the oxygen saturation. In differences between groups there decrease PaO<sub>2</sub>, PaCo<sub>2</sub> and increase HCo<sub>3</sub> in the study group. Recommendation: Nurses should be trained how to demonstrate the foot reflexology among mechanically ventilated patients.

**Keywords :** arterial blood gases, foot, mechanical ventilated patient, reflexology

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