

KANGAROO POSITION INDUCES AN INCREASED LONG LASTING ELECTROMYOGRAPHIC ACTIVITY IN PRETERM BABIES

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Objective:

The purpose of this study was to investigate the influence of the kangaroo position on preterm babies electromyographic activity

Methods:

This comparative and cross-sectional study was carried out between October 2009 and February 2010, and involved 89 children in the Institute of Integrated Medicine Prof. Fernando Figueira (IMIP) in the city of Recife, Brazil. The rectus abdominis, the biceps braquii, and the hamstring muscles were assessed by electromyographic registration (EMG). The babies were divided in three groups: Thirty nine babies maintained in the kangaroo position for 24 hours (GR1); 25 were placed out of the kangaroo position each one in a little cushion (GR2); and 25 were maintained in the kangaroo position for 24 hours and then placed in the little cushion during 24 hours (GR3). The first EMG was made immediately before (0h) putting the babies in their respective positions. A second EMG was made 24h following the first one. A third EMG was performed only for GR3 24h after the second EMG.

Results:

After 24 hours in the kangaroo position (GR1) an increase of EMG ranging from 14.8% to 19.2% ($p < 0.001$) was observed. No significant difference was detected in EMG in the GR2 before and after cushion. An increase from 13.4% to 15% ($p < 0.001$), according to the muscle assessed, was observed in GR3 even after 48h the beginning of the experiment.

Conclusions:

Kangaroo position induces an increased long lasting EMG activity in preterm children, indicating an improvement of their muscle tonus.

