POS-A03

PD en Investigación Biomédica

PRECOCIOUS DIAGNOSIS OF PRETERM LABOR IMMEDIACY BY AUTOREGRESSIVE INTEGRATED MOVING AVERAGE MODELS

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According to the World Health Organization, every year 15 million babies are born preterm, and its complications lead to the death of nearly 1 million each year. In order to quantitatively diagnose the immediacy of labor, we obtained 142 clinical cardiotocographies from pregnant women, subdivided into two groups: the ones whose labor occurred more than seven days after the cardiotocography recording, and the ones who gave birth during those seven days. We have been able to find strongly significant differences between the groups modeling the corresponding tocographies by ARIMA models. We also observed that the CGTs closer to labor had more dependency on the previous values. On this paper, for the first time, the ARIMA models have been applied to cardiotocographies in order to estimate the immediacy of preterm labor, setting the basis for a quantitative diagnosis that will improve the detection and prevention of preterm birth worldwide.