



Decreased Fetal Movement: Maternal Characteristics And Pregnancy Outcome

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Objective:

The aim of this study was to evaluate the epidemiological profile of decreased fetal movement and to identify the predictive factors of poor pregnancy outcome.

Design:

We conducted a retrospective and descriptive study.

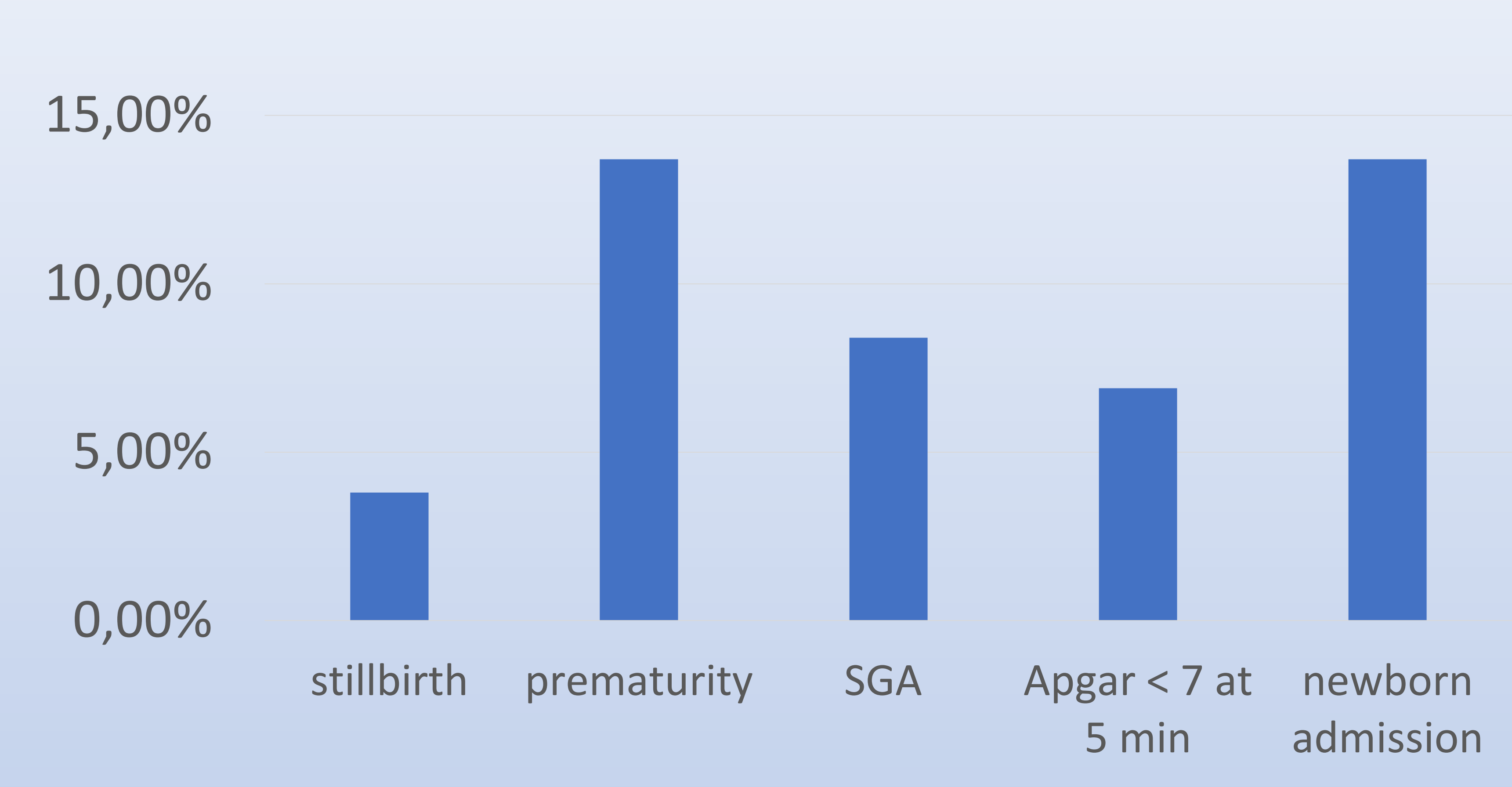
Methods:

We included 150 patients hospitalized for decreased fetal movements in the department C of Maternity and Neonatology center of Tunis between January 2018 and December 2023.

Results:

The study included 150 patients with a mean age of 30.7±5.8 years. The patients were primiparous in 45.3% of cases. The mean term of pregnancy was 37.17±2.97 weeks. Prenatal care was considered insufficient in 22% of cases. The most common complications was gestational diabetes (34%) and renal vascular disease (11.3%). The consultation delay was more than 24 hours in 44.7% of cases. Symphysis-fundal height was not related to the term in 24.7% of cases. Cardiotocography was pathological in 22.7% of patients. Ultrasound showed growth abnormalities (24.6%) and amniotic fluid abnormalities (27.3%). The delivery rate during the hospitalization was 87.3% with a mean term of 37.9±2.5 SA. The Caesarean Section rate was 90.8 %.

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Predective factors of poor pregnancy outcome	OR
Gestational term < 37 weeks	9.42
Insufficient prenatal care	2.85
Delayed maternal reporting of decreased fetal movement	1.29
Complications during pregnancy	3.01
Small symphysiofundal height for gestational age	6.17
Pathological cardiotocography	1.66
Fetal growth restriction	6.17
Abnormal Umbilical Artery Doppler	6.51

Conclusion:

Decreased fetal movement can be a false alarm but it is important to identify predictive factors of poor pregnancy outcome to recognize patients at increased risk and optimize their management.

Discussion:

One study examined the relationship between reduced fetal movements and poor perinatal outcomes, such as being small for gestational age. This prospective cohort study by Dutton et al. included 303 pregnant women who reported reduced fetal movements after 28 weeks of gestation. They observed that 22.1% of these pregnancies resulted in poor perinatal outcomes. The most common complication was the delivery of term and preterm infants who were small for gestational age (19.1%). They also found that 4.1% of neonates from the group with reduced fetal movement weighed below the 10th percentile, and 0.7% required admission to the NICU. Although there were no stillbirths in this cohort, four participants underwent emergency Caesarean section due to pathological CTG, and intrauterine asphyxia was confirmed by acidaemia in the umbilical arterial sample.(1,2)

Warland et al. conducted an international internet survey involving 1,714 women who experienced a late stillbirth. The survey noted that between 30% to 55% of women who reported reduced fetal movements within a week before stillbirth faced this outcome. Furthermore, 30.5% of the surveyed women reported significantly reduced fetal movements before stillbirth.(3)

The McCarthy (4) study observed that women in the RFM group exhibited a lower likelihood of experiencing spontaneous onset of labor compared to the control group. Additionally, the RFM group had a higher likelihood of undergoing induced labor. Although there was an increase in the rate of cesarean sections, the difference observed (from 32.6% to 29.8%) was not statistically significant

1Bekiou A, Gourounti K. Reduced Fetal Movements and Perinatal Mortality. Mater Sociomed. 2020 Sep;32(3):227-234. doi: 10.5455/msm.2020.32.227-234. PMID: 33424454; PMCID: PMC7780810

2-Dutton P, Warrander LK, Roberts SA, Bernatavicius G, Byrd LM, Gaze D, et al. Predictors of poor perinatal outcome following maternal perception of reduced fetal movement - a prospective cohort study. *PLoS One*. 2012;7(7):e39784.

3-Warland J, O'Brien LM, Heazell AE, Mitchell EA. For the Stillbirth Consortium. An international internet survey of the experiences of 1,714 mothers with a late stillbirth: the STARS cohort study. *BMC Pregnancy Childbirth*. 2015;15:172.

4-McCarthy CM, Meaney S, O'Donoghue K. Perinatal outcomes of reduced fetal movements: a cohort study. *BMC Pregnancy and Childbirth*. 2016;16:169.