

Impact of severity of isolated oligohydramnios at term on perinatal outcomes: a retrospective cohort study

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Objective

To examine the correlation between the severity of isolated oligohydramnios at term and adverse perinatal outcomes, aiming to inform clinical management strategies.

Methods

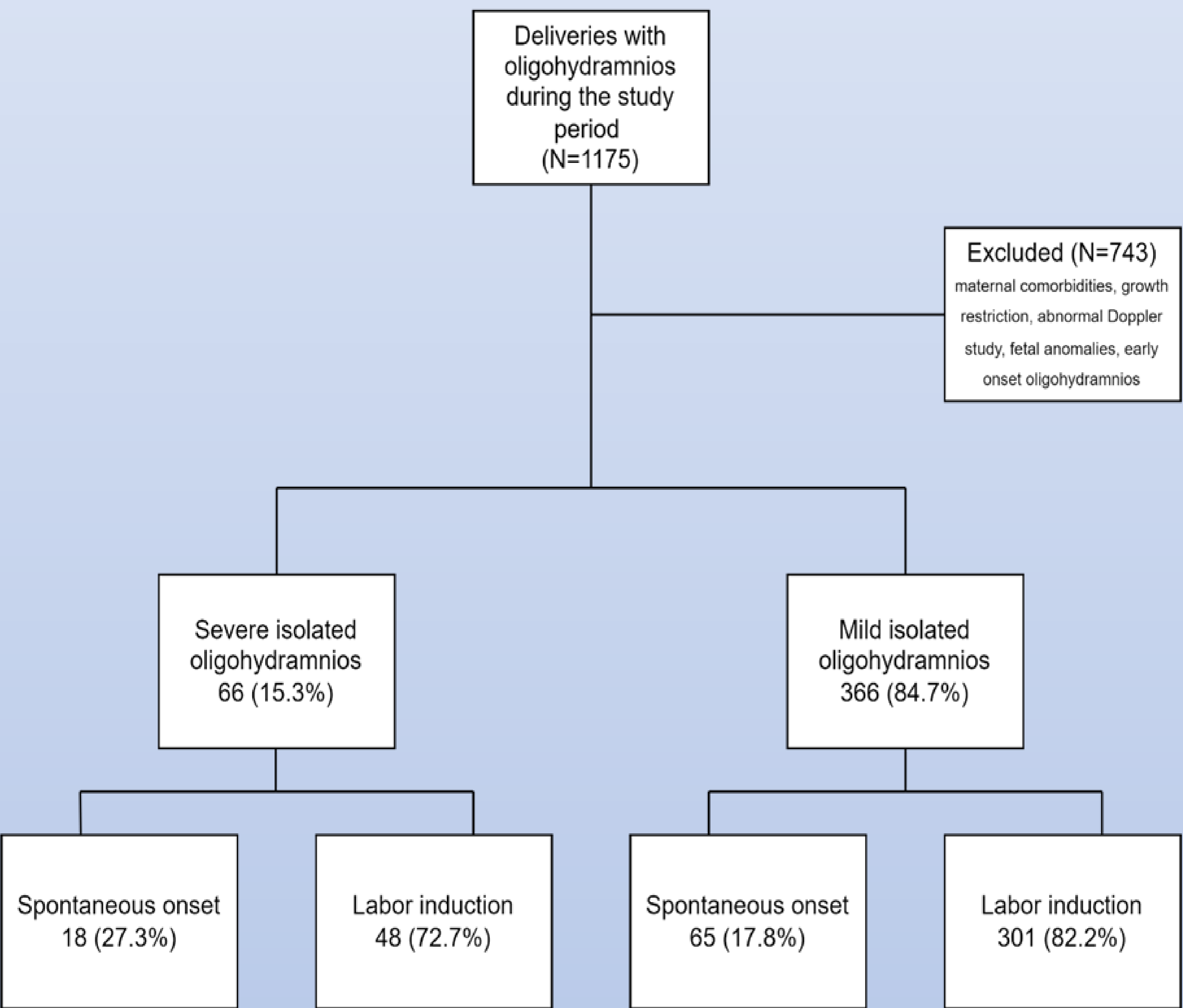
This retrospective cohort study conducted at a tertiary university-affiliated hospital from 2028-2024 included women at 37-42 weeks of gestation diagnosed with isolated oligohydramnios, defined as an amniotic fluid index (AFI) ≤ 5 cm. Exclusion criteria included maternal comorbidities, fetal anomalies, abnormal Doppler studies, multifetal pregnancies, and fetuses with growth restriction or small for gestational age. Participants were categorized into severe (AFI ≤ 2 cm) and mild (AFI 2.1–5.0 cm) oligohydramnios groups. The primary outcome was a composite measure of adverse perinatal outcomes, including cesarean or vacuum delivery for fetal distress, 5-minute Apgar score < 7 , umbilical artery pH < 7.1 , meconium-stained amniotic fluid, neonatal intensive care unit admission, or birth asphyxia.

Results

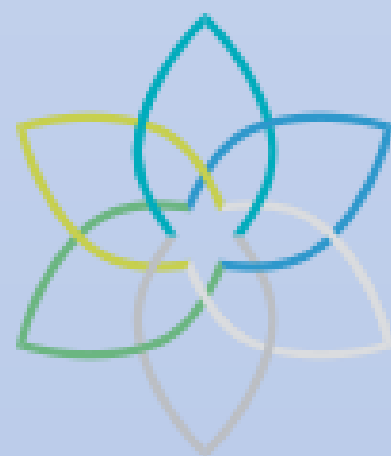
Of the 29,759 pregnancies that led to deliveries during the study period, 432 (1.5%) were with isolated term oligohydramnios: 66 (15%) severe oligohydramnios and 366 (85%) mild oligohydramnios. The incidence of adverse composite neonatal outcomes was higher in the former than the latter group (22.7% vs. 12.8%, $p = 0.039$). In multivariate analysis, severe oligohydramnios remained predictive of adverse perinatal outcomes, after adjusting for labor induction, gestational age at diagnosis, nulliparity, and the interval from diagnosis to delivery; adjusted odd ratio 1.96 (95% CI = 1.09 to 3.779, $p = 0.044$).

Conclusions

Severe compared to mild isolated oligohydramnios at term was associated with a higher incidence of perinatal outcomes. This highlights the importance of close monitoring and of considering earlier induction of delivery in pregnancies with isolated severe oligohydramnios at term.



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