Serum Anti-Müllerian Hormone does not predict adverse perinatal outcomes in a cohort of women diagnosed with recurrent pregnancy loss

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Objective. The predictive value of serum Anti-Müllerian Hormone (AMH) for overall reproductive potential is debated. This study aimed to assess the relationship between AMH levels and adverse perinatal outcomes in women with recurrent pregnancy loss (RPL).

Materials and Methods. A retrospective study was conducted on women assessed for RPL at a tertiary centre between 2014 and 2023. Participants were grouped based on AMH levels (< 0.7 ng/mL and ≥ 0.7 ng/mL). Pregnancy and perinatal outcomes were evaluated as composite adverse perinatal outcomes (CAPO) and composite adverse maternal outcomes (CAMO). Statistical analysis included descriptive and inferential statistics. Logistic regression models were estimated to investigate factors associated with the occurrence of adverse outcomes.

Results. 453 women were assessed for RPL during the study period. AMH levels were available for 281 (62.0%), with pregnancy data for 123 (44.1%). Of these, 11 (8.7%) experienced a miscarriage, while 112 (90.3%) had a live birth. Women with AMH < 0.7 ng/mL were older, had more miscarriages, and a higher prevalence of hereditary thrombophilia. In ongoing pregnancies, this group had a higher incidence of thyroid disorders and lower antral follicle count, with a trend towards increased labour induction. Multivariable analysis showed no significant association between AMH levels and adverse outcomes, except labour induction, which appeared protective against neonatal adverse outcomes.

Conclusions. In women with RPL and low AMH levels, AMH did not influence adverse perinatal outcomes, aside from the protective effect of labour induction. Prospective studies are needed to confirm these findings and inform periconceptional counselling.