



## Abstract Early Lactation Outcomes after Pregnancies Complicated by Gestational Diabetes <sup>†</sup>

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Abstract: Continued breastfeeding attenuates maternal and infant risks associated with gestational diabetes mellitus (GDM), which may be more difficult after a GDM pregnancy, with reports of delayed secretory activation and reduced milk production. The total 24 h milk production cycle is not routinely measured; therefore, it is unclear whether reported low milk production is actual or perceived. We aimed to describe early lactation outcomes and 24 h milk production in women with GDM. Women with GDM-complicated pregnancies recorded early feeding practices. The 24 h cycle of milk production was measured at 3 weeks by weighing infants pre- and post-breastfeeds, as well as breast expression volumes. Electronic scales sensitive to 2 g were used. Low 24 h milk production was classified as <600 mL. For women with GDM (n = 40), the median time to the initiation of breastfeeding was 55 min, and delayed secretory activation (n = 24, 60%) was common. Most women achieved frequent milk removal ( $\geq 8 \times 24$  h) in the first 24 h after birth (*n* = 27, 68%) was at one week (n = 38, 95%) and three weeks postpartum (n = 36, 90%). However, median 24 h milk production was 639 mL (range 100–1220 mL), with low milk production measured in n = 16 (40%, range 100–592 mL). Conclusions: Delayed secretory activation and low milk production are more common in women with GDM despite regular milk removal from the breast, suggesting that altered endocrine pathways inherent to GDM may be implicated.

Keywords: gestational diabetes mellitus; human milk; low milk production; secretory activation

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