The incidence of GDM in Canada is approximately 4%.

Gestational Diabetes Mellitus (GDM): refers to pancreatic beta cell destruction from an autoimmune process. Approximately 2.4 million Canadians have diabetes. The incidence of diabetes in Canada among the general population aged 12 years and older has increased from 5.8% to 6.5% from 2007 to 2012.

Women who are obese have higher rates of GDM and T2DM. Early and prolonged breastfeeding can delay the introduction of infant formula. Breastfeeding offers a beneficial effect on childhood obesity and reduces the risk of developing T2DM. Breastfeeding is associated with reduced glucose in infants born to women with diabetes and reduces the load on the pancreatic B-cells through reduced demand for insulin secretion and decreases the progression to T2DM. Early breastfeeding may stabilize glucose in infants born to women with diabetes. Lactation may reduce the load on the pancreatic B-cells through reduced demand for insulin secretion. Women who are obese have higher rates of GDM and T2DM.

Type 1 Diabetes (T1DM): primarily a result of pancreatic beta cell destruction from an autoimmune process. Type 2 Diabetes (T2DM): predominantly insulin resistance.

Infants born to mothers with diabetes are at an increased risk of hypoglycemia and metabolic syndrome. Breastfeeding support for women with diabetes can provide anticipatory guidance to support breastfeeding exclusivity in the postpartum period. Breastfeeding is associated with reduced risk of developing metabolic syndrome.

Statistics

- The incidence of diabetes in Canada among the general population aged 12 years and older has increased from 5.8% to 6.5% from 2007 to 2012.
- Approximately 2.4 million Canadians have diabetes.
- By 2019, the number is expected to be 3.7 million.
- The incidence of GDM in Canada is approximately 4%.
- Almost 50% of women with GDM will be diagnosed with T2DM within 5-8 years after pregnancy.

Problem

- Women who are obese have higher rates of GDM and T2DM.
- Obesity is associated with reduced initiation and duration of breastfeeding.
- Intention to breastfeed is lower in women with diabetes.
- Breastfeeding duration and exclusivity are lower in women with diabetes.

Maternal Value of Breastfeeding

- Breastfeeding is associated with a reduced risk of developing metabolic syndrome.
- Longer duration of breastfeeding is associated with improved insulin and glucose response in women with a history of GDM.
- Increased duration of breastfeeding can reduce the risk of developing T2DM.

Infant Value of Breastfeeding

- Infants born to mothers with diabetes are at an increased risk of hypoglycemia.
- Early and prolonged breastfeeding can delay the introduction of infant formula.
- Breastfeeding offers a beneficial effect on childhood obesity.
- Breastfeeding exclusivity and increased duration offer protective factors against infants developing T1DM.

Long-Term Value of Breastfeeding

- Obesity and diabetes may delay the onset of milk production.
- Most lactating mothers lose body weight and subcutaneous fat during the postpartum period which decreases the risk of progression to T2DM.
- Lactation may reduce the load on the pancreatic B-cells through reduced demand for insulin secretion and decreases the progression to T2DM.

References

- Gunderson, E., et al. (2010). Duration of Lactation and Incidence of the Metabolic Syndrome in Women of Reproductive Age According to Gestational Diabetes mellitus Status: A 20-Year study in CARDIA (Coronary Artery Risk Development in Young Adults) Study.
- Canadian Journal of Diabetes, 30(1), 37(suppl 1).