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Ocena wpływu zastosowania ciągłego monitorowania glikemii na wyniki leczenia cukrzycy ciążowej

Rozprawa na stopień doktora nauk medycznych i nauk o zdrowiu w dyscyplinie nauki medyczne

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Streszczenie w języku angielskim

Efficacy of flash glucose monitoring on treatment and perinatal outcomes in gestational diabetes mellitus

Gestational diabetes mellitus is one of the most common complications of pregnancy, affecting 10-14% of pregnant women worldwide. It is defined as hyperglycaemia of variable severity, diagnosed for the first time during pregnancy. GDM is a risk factor of short-term adverse outcomes including fetal macrosomia, shoulder dystocia, neonatal hypoglycaemia and neonatal hyperbilirubinemia. It is also associated with higher incidence of long-term complications, such as type 2 diabetes both for pregnant women as neonates. GDM is divided into two subgroups depending on the rate of hyperglycaemia and type of treatment: GDMG1- treated with diet and GDMG2 – treated with diet and insulin. Proper glycaemic control plays essential role in management of GDM; currently, there are two methods for glucose concentration measurement: self-monitoring of blood glucose (SMBG) and continuous glucose monitoring (CGM). The superiority of CGM to SMBG is constant circadian glycaemic control. There are two types of CGM: rtCGM and isCGM (FGM). RtCGM automatically measures glucose concentration independently from patient, whereas isCGM requires sensor scanning for an activity of a device.

The aim of FLAMINGO trial was to assess impact of FGM on management of GDM. Furthermore, the study analysed efficacy of FGM on lifestyle modifications. Mean fasting and postprandial glucose concentration from the first 4 weeks following the recruitment and its correlation with macrosomia incidence were analysed.

Confirmation of FGM efficacy on better glucose control and reduction of adverse perinatal outcomes may lead to proposal of new recommendations for standard of care in glucose monitoring in GDM. The presented studies confirmed impact of FGM on better glycaemic control, diet modifications and lower incidence of fetal macrosomia. Based on that, FGM is suggested to be more effective method of glucose monitoring in patients with GDM, when compared to SMBG. Introducing FGM as a gold standard in glucose monitoring for gestational diabetes might improve perinatal outcomes in this population.