

ADHERENCE TO REMOTE MONITORING IN THE PRENATAL FOLLOW-UP OF GESTATIONAL HYPERTENSIVE DISORDERS

Background

Five to eight percent of pregnant women worldwide develop gestational hypertensive disorders (GHD). In 2021, the prevalence of GHD in Flanders was 4.1% [1]. A close follow-up of those women at risk is recommended to perform timely interventions when necessary. The follow-up of women with GHD can be improved by adding remote monitoring (RM) to the current prenatal follow-up [2]. A high adherence rate is necessary to succeed in the RM follow-up. We hypothesize that the midwife can perform a crucial role in the adherence rate of pregnant women to RM.

Aim(s)

This study tries, as a part of the Pregnancy REmote Monitoring (PREMOM) II study, to investigate if there is a significant difference in adherence between an RM group with the supervision of a midwife vs an RM group without the supervision of a midwife (patient self-monitoring group; PSM).

Methods

This study is a part of the PREMOM II study, a multicentric randomized controlled trial (RCT). Via a 1:1:1 ratio were women at risk for GHD divided into an RM group (n = 272); a PSM group (n = 268); or a control group (CC; a group of women without RM supervision; n = 329). The women measured their blood pressure twice daily (one measurement in the morning, one in the evening) and registered their body weight weekly in the app. Their adherence is calculated by comparing the actual taken measurements with the expected measurements for both the blood pressure (in the morning and the evening) and the body weight.

Results

Based on Welch's t-test ($p < 0.0001$), there is a significant difference in the adherence between the RM group and the PSM group. The mean of taken blood pressures in the morning is significantly higher in the RM group (71.72%; SD 28.37%) vs. the PSM group (53.02%; SD 35.14%), and also in the evening between the RM group (74.79%; SD 27.49%) vs. the PSM group (58.30%; SD 36.43%). The mean adherence for measuring the body weight for the RM group is 53.90% (SD 37.69%) vs. 33.60% (SD 36.06%) in the PSM group.

Discussion

The primary outcomes of this study show that the addition of a midwife when using RM improves adherences. This could lead to faster detection of hypertension during pregnancy, resulting in faster treatment and better outcomes for both mother and child. Furthermore, fewer admissions and lower costs can also be seen as secondary outcomes.

Implications and future perspectives

The role of the midwife is important in the use of RM for the prenatal follow-up of GHD. It ensures better adherence to therapy. The use of RM in obstetric care is still very limited despite its potential benefits.

References

1. Devlieger R, Martens E, Martens G, Van Mol C, Cammu H. Perinatale activiteiten in Vlaanderen 2015. Brussel: SPE; 2021.
2. Lanssens D, Thijs IM, Gyselaers W, Lebbe B. Design of the Pregnancy REmote MONitoring II study (PREMOM II): a multicenter, randomized controlled trial of remote monitoring for gestational hypertensive disorders. BMC Pregnancy and Childbirth. 2020;20:1-11.