

Low Molecular Weight Heparin (LMWH) prevents pre-eclampsia in pregnancies with FGR < 3% and normal fetal growth with suspected placental dysfunction

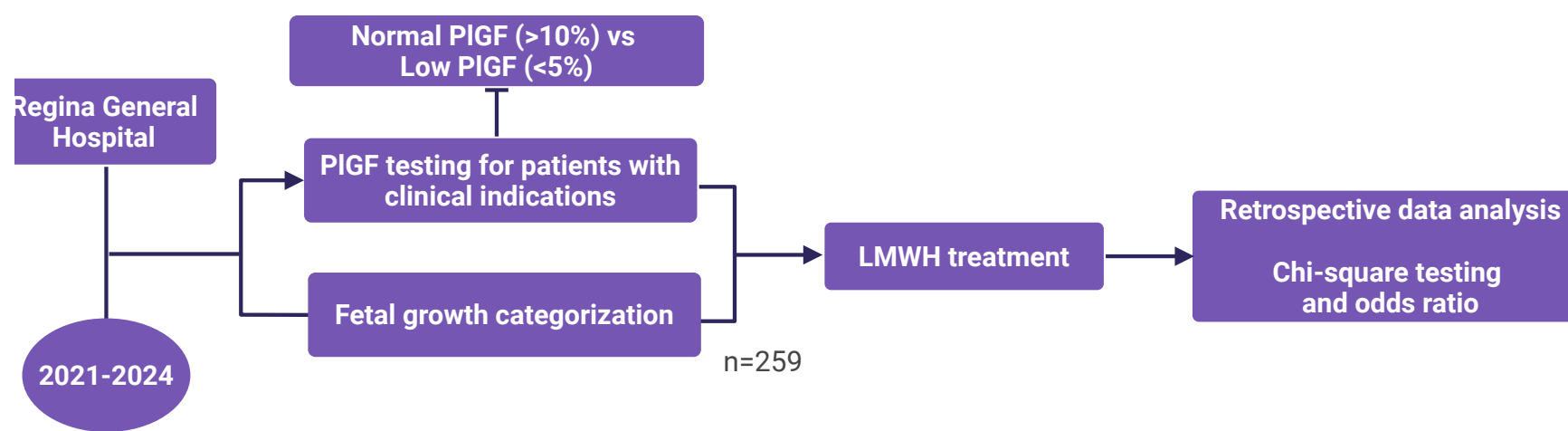
Figueiro-Filho, E.A.; Souza Lira, A.; Ramadan, E.; Adanlawo, A.
University of Saskatchewan, Regina, SK, Canada

BACKGROUND

- Preeclampsia is associated with placental insufficiency.
- Identification of maternal circulating PIGF is important for accurately predicting and timely diagnosis of placental dysfunction.
- LMWH is believed to augment PIGF in dysfunctional placentas with low PIGF levels (<5%).
- The objective of this study was to evaluate the usefulness of antenatal LMWH in pregnancies with suspected placental dysfunction in both growth-restricted fetuses (FGR < 3%) and those with normal growth.

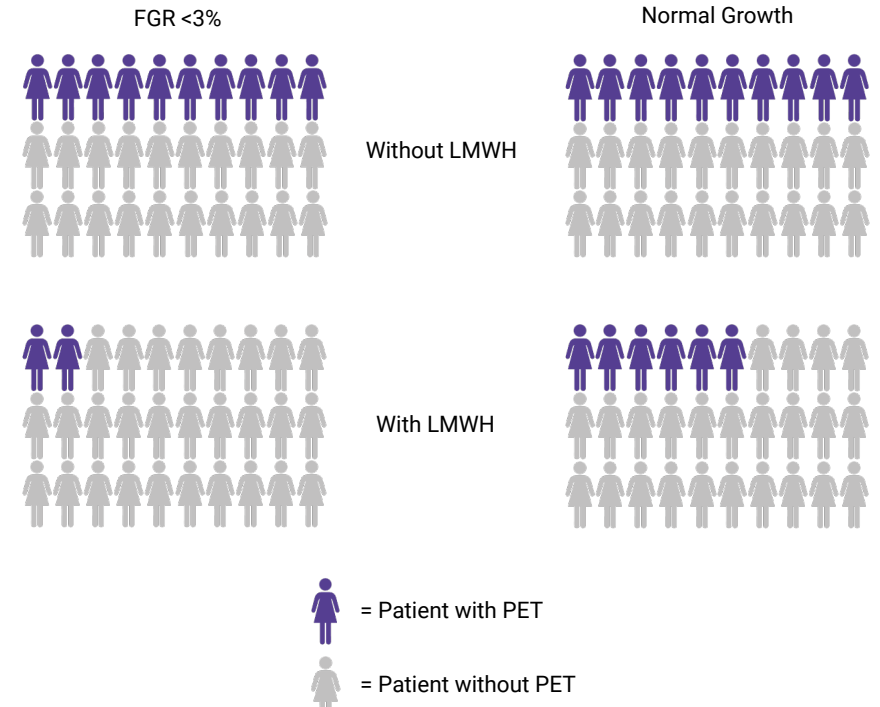
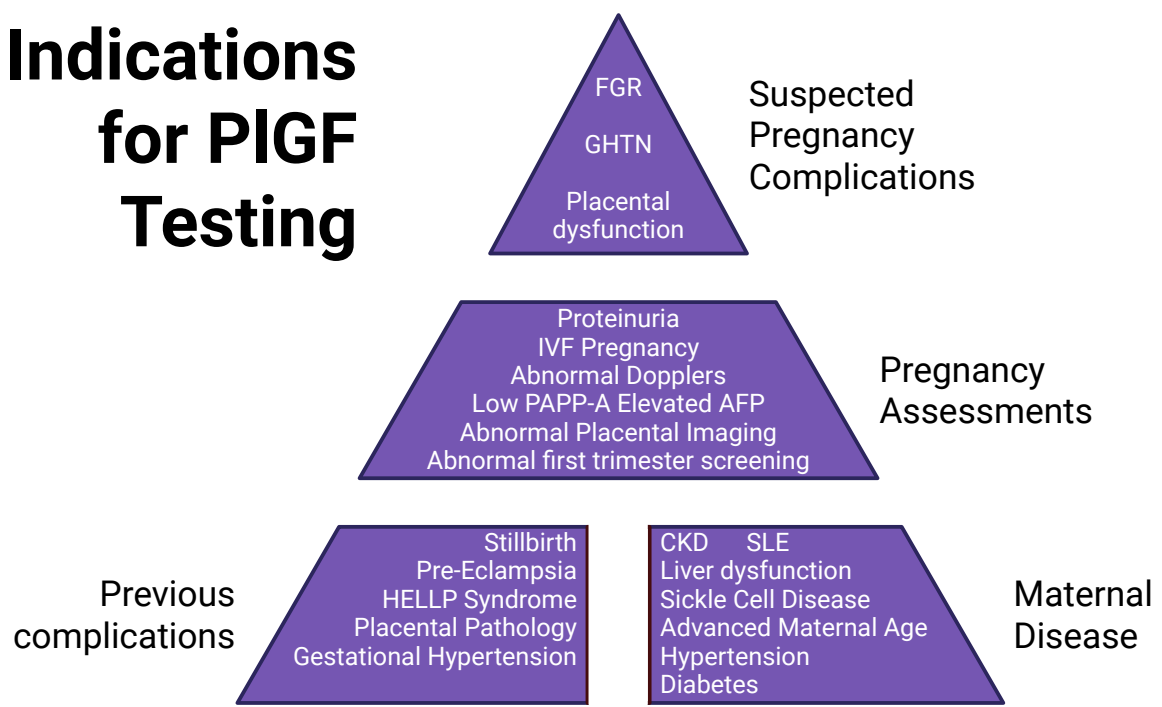
METHODS

- 259 records were included in this retrospective cohort; 46 in the FGR group and 213 in the normal growth group.
- The primary exposure was the antenatal use of LMWH, offered to all patients with low PIGF levels (<5%) and suspected placental dysfunction.
- The primary outcome was development of PET.
- Chi-square (χ^2) and Odds Ratio (OR) with a 95% Confidence Interval (95% CI) were calculated, with significance at $p < 0.05$



RESULTS

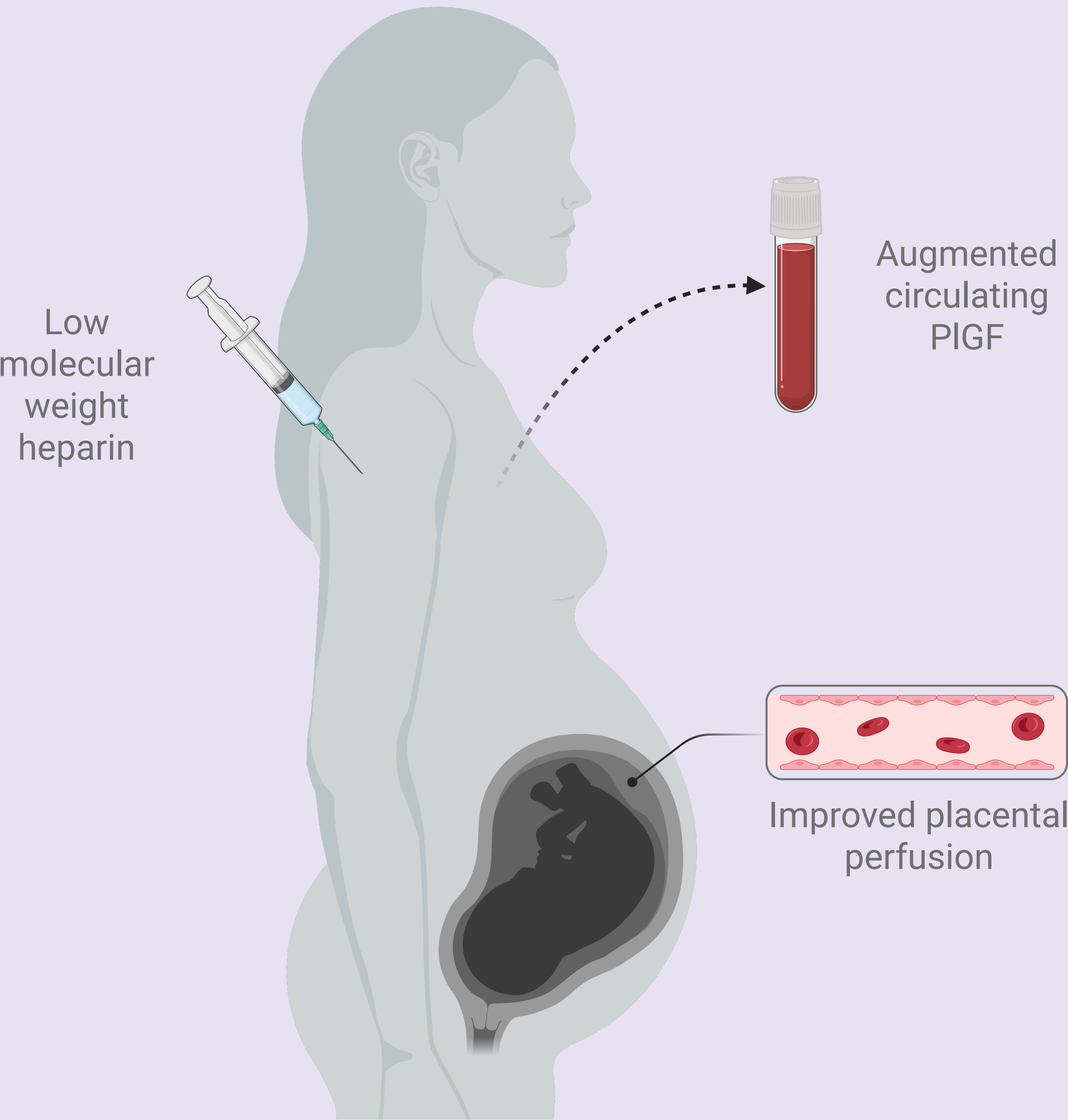
- LMWH was used in 94% of patients with FGR < 3% and 76% of patients with normal fetal growth and low PIGF levels.
- Antenatal LMWH had a protective effect against PET in patients with FGR < 3% (OR 0.12 95% CI 0.03-0.49; $p = 0.002$).
- Antenatal LMWH had a protective effect against PET in patients with normal fetal growth (OR 0.46 95% CI 0.21-0.98; $p = 0.04$).



CONCLUSION

- These preliminary results identified the potential protective effect of LMWH for the development of PET in patients with low PIGF levels, regardless of fetal growth status.
- The risk of imminent preeclampsia, preterm birth, and IUFD may warrant referral of patients with low PIGF levels to higher-level centers.
- The use of LMWH in these patients can potentially augment placental function, improving perinatal outcomes.
- Further studies are needed to explore the effect of LMWH on PIGF levels associated with other perinatal complications.

LMWH has a **protective effect** against the development of **preeclampsia** in patients with **low PIGF levels, regardless of fetal growth status**



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