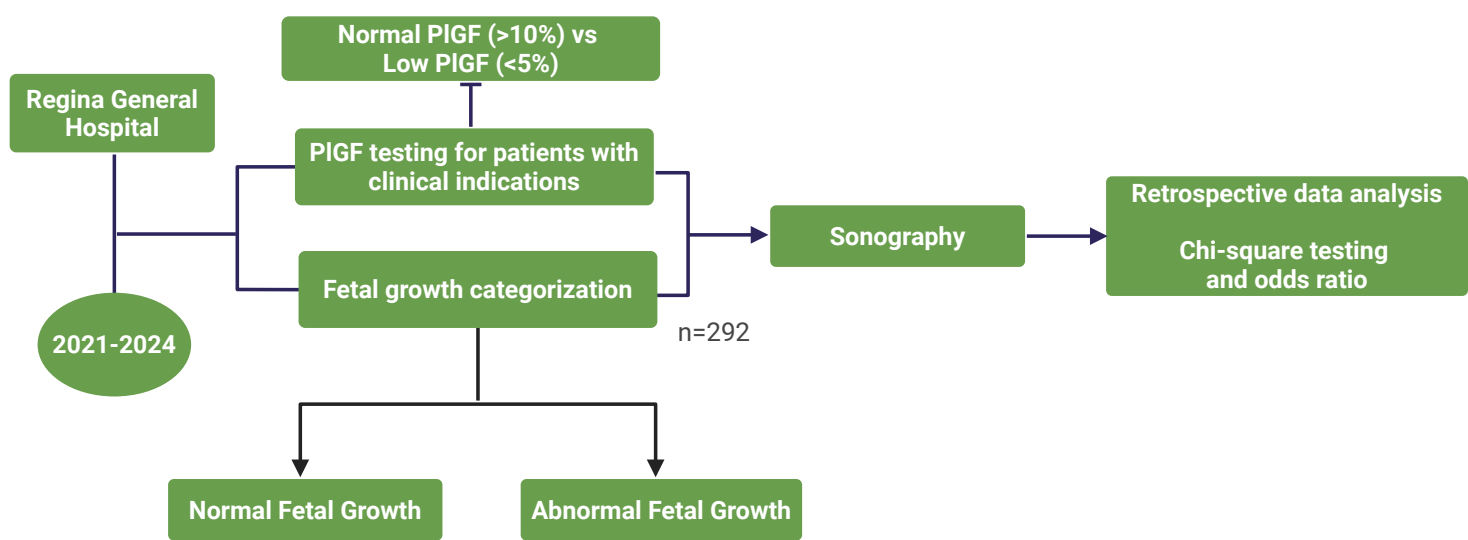


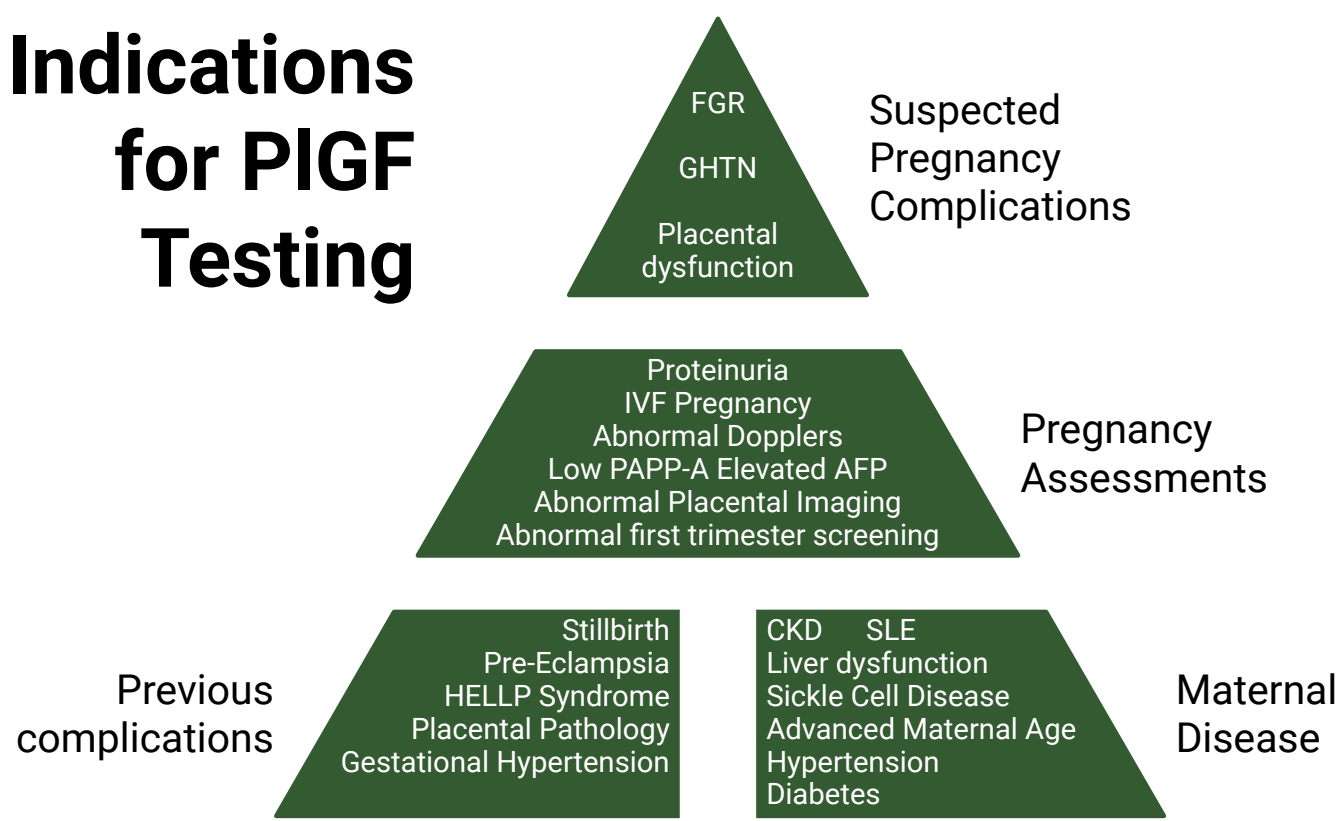
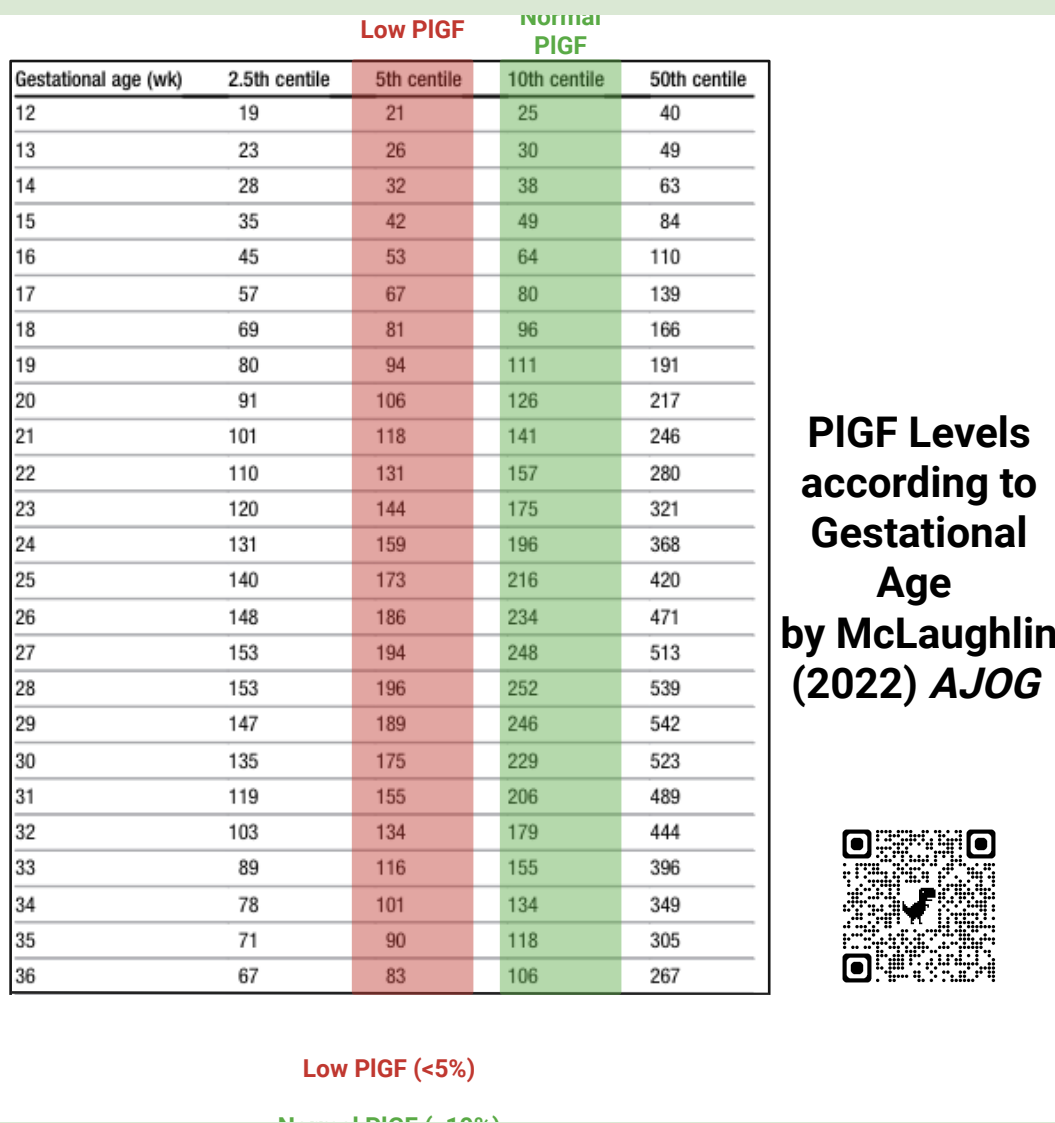
BACKGROUND

- Fetal growth restriction (FGR) is associated with placental dysfunction.
- Growth-restricted fetuses have an increased risk of stillbirth, neonatal morbidity, and mortality.
- Identification of circulating PIGF in maternal serum is important for the accurate prediction and timely diagnosis of FGR.

METHODS



EXTRAS



Poster ID EP08.63

Real-time Placental Growth Factor (PIGF) in managing high-risk pregnancies: preliminary results comparing compromised and normal fetal growth

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

RESULTS

Total N = 292 Normal Growth = 213/292 (73%) FGR/SGA = 79/292 (27%)	Abnormal Fetal Growth	Normal Fetal Growth	OR (CI95%)	p-value
	FGR (EFW <3%)/SGA (EFW 4-10%)	EFW 11-90%		
PLGF				
Low (≤5%)	50 (63%)	55 (26%)	4.9 (2.9-8.6)	<0.0001
Normal (≥10%)	29 (37%)	158 (74%)		
US Findings				
Abnormal Placental Morphology	49 (62%)	50 (23%)	5.3 (3.1-9.3)	<0.0001
Perinatal Outcomes				
Diabetes	19 (24%)	91 (43%)	0.42 (0.23-0.76)	0.004
Preeclampsia	27 (34%)	52 (24%)	0.40 (0.22-0.73)	0.002
IUFD	6 (7.6%)	1 (0.5%)	17.42 (2.06-147.16)	0.001
Preterm birth < 34 weeks	29 (37%)	27 (13%)	3.99 (2.17-7.35)	<0.0001
Birthweight < 3% (CPSS)	13 (16.5%)	4 (2%)	10.29 (3.24-32.64)	<0.0001
Admission to NICU	37 (47%)	40 (19%)	3.81 (2.17-6.66)	<0.0001
Placental Pathology				
Confirmed Maternal/Fetal Vascular Malperfusion	40 (51%)	27 (13%)	7.06 (3.88-12.84)	<0.0001

- Low PIGF and compromised fetal growth showed a statistically significant strong association (OR 4.9; CI 95% 2.9-8.6; p<0.0001).
- Compromised fetal growth was also associated with abnormal placental sonographic findings, diabetes, preeclampsia, IUFD, PTB < 34w, low birth weight, NICU admission and confirmed placental pathology.

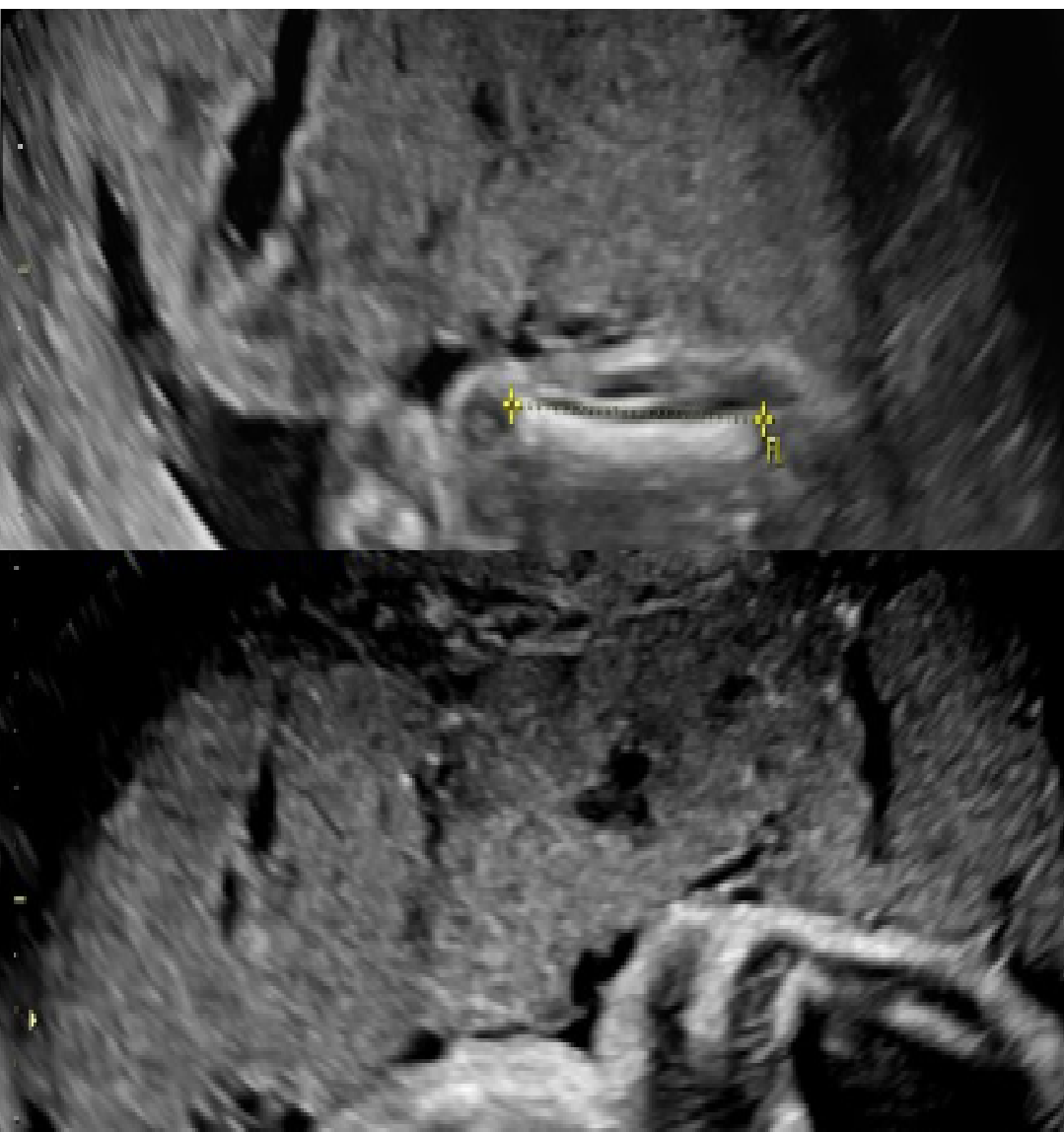


Table 1: Perinatal outcomes and Placental Growth Factor levels associated with FGR (EFW <3%), SGA (EFW 4-10%) and Normal Growth Fetuses (EFW 11-90%) in a high-risk pregnant population in Canada

Abnormal placental morphology (echogenic cystic lesions) were associated with fetal growth restriction.

CONCLUSIONS

- This study demonstrated the usefulness of real-time PIGF for the management of pregnancies at risk of compromised fetal growth.
- The risk of imminent preterm birth, preeclampsia and IUFD may warrant referral of high-risk patients with low PIGF levels to higher-level centers.
- PIGF testing has the potential to overcome some of the real challenges healthcare systems in Canada face in providing effective obstetrical care to pregnant people in remote or low-income settings.

ACKNOWLEDGEMENTS

