

Interval Growth Across Gestation in Pregnancies with Fetal Gastroschisis

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Introduction

- Gastroschisis is a congenital abdominal wall defect that results in herniation of bowel and other abdominal contents.
- Fetal gastroschisis is often associated with estimated fetal weight (EFW) <10th percentile, which complicates pregnancy management.
- Interval growth in fetuses with gastroschisis remains uncertain.
- Defining interval growth for fetuses with gastroschisis is essential to understand growth patterns over time and optimally manage these pregnancies.

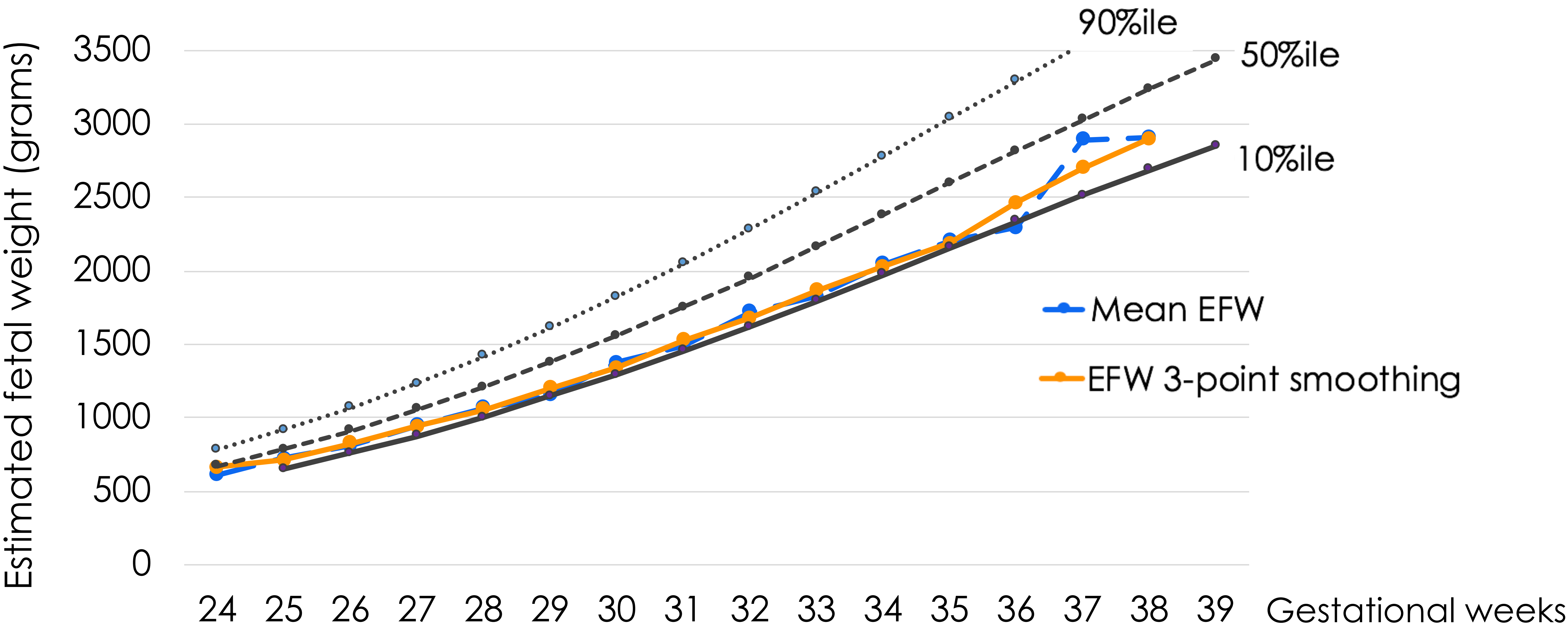
Study Question

To define the mean EFW for each gestational age and interval weekly growth across gestation in gastroschisis pregnancies.



Fetuses with gastroschisis often meet criteria for fetal growth restriction, and their interval growth across gestation approximates that of non-anomalous growth restricted fetuses.

Interval growth over gestation for gastroschisis



N = 84 84 84 84 84 84 84 84 84 81 75 64 59 39 20 8 Continuing pregnancies

Methods

- Retrospective cohort study of all gastroschisis pregnancies with ≥ 1 ultrasound done at a UCfC institution.
- Biometry parameters and EFW were recorded for each ultrasound. EFW calculated using Hadlock's formula¹⁻³.
- Mean EFW for the cohort was calculated for each gestational age.
- 3-point smoothing was utilized to even short-term fluctuations in the data and highlight overall trends.

Results

This cohort includes 84 fetuses.

Maternal demographics	
Maternal age (years)	23 \pm 4.5
Maternal BMI	27.4 \pm 5.5
Nulliparous	53 (63.9%)
Ethnicity/Race	
White	59 (71.1%)
Asian	1 (1.2%)
Other/Mixed	20 (24.1%)
Hispanic	46 (55.4%)
Substance History	
Alcohol	2 (2.4%)
Smoking	7 (8.3%)
Illicit drugs	7 (8.3%)
Pregnancy outcomes	
Preterm delivery	45 (53.6%)
Gestational age at delivery (weeks)	36.9 \pm 1.8
Birthweight (grams)	2575 \pm 532

Data are mean \pm standard deviation or n (%)

48% of gastroschisis pregnancies met criteria for fetal growth restriction with EFW <10th percentile.

Mean interval growth per week:

- 164 grams based on raw data.
- 171 grams calculated with 3-point smoothing.

References

- Hadlock FP, et. al., Estimating fetal age: computer-assisted analysis of multiple fetal growth parameters. Radiology. 1984 Aug;152(2):497-501.
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