Fetal Growth Restriction

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FGR

Fetuses who have failed to achieve normal weight is inconsistent

ACOG :fetal weight (EFW) <10th percentile

RCOG: considers either EFW <10th percentile or abdominal circumference <10th percentile reasonable criteria for FGR

Using RCOG criteria, a fetus with a small abdominal circumference but an EFW >10th percentile would be considered growth restricted

AC: most sensitive single biometric indicator of FGR

Small AC also correlates with morbidity associated with FGR

Biochemical markers of hypoxia and acidemia are more common when the AC is below the 5th

The sensitivity of EFW for predicting FGR and adverse outcomes associated with FGR is highest for infants with **birth weight <3rd** percentile.

Small-for-gestational age (SGA) or isolated FGR :

small fetus (ie EFW<10th centile, normal amniotic fluid volume and normal umbilical artery Doppler) .

Intrauterine growth restriction (IUGR) :

Pathologically small fetus (ie EFW<10th centile, oligohydramnios, abnormal UA Doppler AND/ OR poor interval growth velocity AND/ OR EFW <3rd centile)

Symmetric FGR

* 20 to 30 %

*Global impairment of cellular hyperplasia early in gestation

*Result from a pathologic process manifesting early in gestation

Asymmetric FGR :

***70 to 80 %**

*** Greater decrease in abdominal size**

*** Result from the capacity of the fetus to adapt to a pathologic environment late in gestation by redistributing blood flow in favor of vital organs (eg, brain, heart, placenta) at the expense of non vital fetal**

Screening

Symphysis-fundal height measurement

In general, if two screening examinations are performed after the second trimester, they are obtained at approximately 32 and 36 weeks of gestation .

If one examination is obtained, it is obtained between 32 and 36 weeks of gestation

Prior birth of a small gestational age ?

The risk of recurrence of :20%

In these women, it may be reasonable to perform serial ultrasonography for growth assessment, although the optimal surveillance regimen has not been determined.

Don't forget

Antiphospholipid syndrome delivery before 34 weeks of gestation

Can fetal growth restriction be prevented?

In women with a history of an SGA birth, some experts have advocated for the use of aspirin to prevent placental insufficiency; however, there is insufficient evidence for such therapy to be routinely indicated for fetal growth restriction prevention

Antenatal corticosteroids are recommended if delivery is anticipated before 33 6/7 weeks of gestation because they are associated with improved preterm neonatal outcomes.

In addition, antenatal corticosteroids are recommended for women in whom delivery is anticipated between 34 0/7 weeks and 36 6/7 weeks of gestation, who are at risk of preterm delivery within 7 days, and who have not received. ACOG (2.2019)

For cases in which delivery occurs before 32 weeks of gestation, magnesium sulfate should be considered for fetal and neonatal neuroprotection in accordance with one of the accepted published protocols

Thank you for your attention

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