

# Underweight + Pregnancy

## • Epidemiology:

- UK: 3%
- sub-Saharan Africa: 30%

## • Definition:

- Underweight: BMI  $< 18.5 \text{ kg/m}^2$
- Average weight: BMI  $18.5 - 25 \text{ kg/m}^2$

## • Aetiology:

### -- intake

- Malnutrition
- Malabsorption
- Hyperemesis gravidarum
- Eating disorders

### + consumption

- Chronic inflammation
- Cancer
- Hypothyroidism

### Constitutional

## • Prediction of adverse preg. outcomes:

gestational weight gain better than BMI

## • Effect of underweight on Preg.:

### • Maternal:

#### Benefits:

- -- DM
- -- PIH (Gest Htn  
PET)
- -- LGA
- -- CS
- -- postpartum Hfe

#### Disadvantages:

- + anemia
- + OASIS
- ED  $\rightarrow$  postpartum relapse  
 $\rightarrow$  " depression  
 $\rightarrow$  " OCD

# Neonatal outcome

cardiometabolic &

## Fetal outcome:

- SGA
- PTL

## Management:

### o Preconception:

- screening = BMI
- Assessment of condition - BMI
- Investigations for severity <sup>comp</sup>
- H/O, exam, inv for aetiology

### o Antenataly:

- screening : BMI
- Assessment of condition - BMI
- Investigations for comp.
- H/O, exam, inv for aetiology

### - ~~Follow up~~

### o weight gain

- Follow up : regular BMI
- target :
  - underweight 12.5 - 18 kg
  - Normal " 11.5 - 16 kg
  - obese 5 - 9 kg

Remember  
underweight  
= BMI < 18 kg/m<sup>2</sup>

## \* Nutritional advice :

- Calories :

L> extra 200 kcal/d e.g. - nuts  
- whole milk

L> Balanced diet eg: CHO, Fat, Ptn  
minerals, vitamins

L> Supplements : - iron - calcium  
- Folic acid - vit D

## \* SGA

## • Investigations for Low BMI

\* Base line :

- CBC
- Liver & kidney
- Bone profile

\* Additional :

L> if anaemic  $\Rightarrow$  ferritin, vit B<sub>12</sub>, folic acid

L> if  $\downarrow$  K<sup>+</sup>  $\Rightarrow$  ECG

L> if eating disorders  $\Rightarrow$  ABG  $\Rightarrow$  alkalosis  
 $\Rightarrow$  hypokalaemia

esp with  
induced vomiting

urine analysis  $\Rightarrow$  ket starvation  
ketonuria

# Management of Eating disorders during pregnancy

\* Preconceptional care & Antenatal care

↳ same as underweight

+

- ① Screen for ED + screen for dual diagnosis
- ② Assessment of condition
- ③ Modify condition (don't start pregnancy till treated & remission)
- ④ Review medications and behavior
  - Stop laxatives, appetite suppressants, diuretics
  - Stop binge eating, self induced vomiting, excessive exercise.

② Assessment of condition = . BMI

- ~~history~~ exam Investigations (see below)
- H/O, exam

③ Modify condition :

- Education
- Psychological therapy eg: CBT
- Stop Medications & Behavior

## Screen for eating disorders

\* disclosed ED

\* Non-disclosed ED: suspected by:

- History:
- low BMI
  - Infertility (oligomenorrhea)
  - Hyperemesis
  - Psychological problems

- Examination
- Nail damage
  - Calluses across finger joints (induced vomiting)
  - Thinning of hair or fine facial hair (lanugo)
  - Dental problems (enamel erosion)
  - Dry skin
  - Parotid enlargement (Hamster's sign)

## Screen for dual diagnosis

- substance abuse
- mental illness
- anxiety
- OCD
- BPD

Poor TH outcomes

Postnatal:

Bone scan (> 3 months)

## weight loss in pregnancy:

causes: Organic: - cancer  
- ~~inflammatory~~ chronic inflammation

Psychological: depression