Drug in pregnancy

When prescribing to pregnant women ,doctor should remember :

All drugs have the potential for affecting the fetus except those with high molecular weight

The physiological changes of pregnancy may altered pharmacokinetics of drugs i.e absorption , distribution , metabolism....

Principles of prescribing in pregnancy

Evaluate every drug with respect to whether it is really necessary or same result obtained by alternative therapeutic measures

Use of drug which have been widely used for many years in preference to recently used drug

medico legal

Teratogen

Any agent or factor that causes physical or developmental abnormalities in embryo or fetus

Abnormalities includes :

Fetal wastage

IUGR

Malformation due to abnormal growth or morphogenesis

Abnormal central nervous system performance

Factors influence the effect of teratogens

Nature & dose

Stage of embryonic development

Fetal susceptibility

Interaction with environmental factors

Maternal metabolism

Teratogenic agents may be categorized :

Drugs & chemical agents

Infectious agent

Radiation

Alcohol

One of most abused substance in USA

Fetal alcohol syndrome

Craniofacial : eye , ear , nose

Cardiac : murmur , ASD , VSD

CNS : mental retardation , microcephally

Growth retardation

Muscular : hernia of diaphragm , umblicus

Skeletal : abnormal palmar creases , nail hypoplasia

One ounce of absolute alcohol daily is enough to produce feature of FAS

Antianxiety

Thalidomide – most widely known teratogen (phocomilia)

Diazepam : oral cleft , with drawal syndrome

Antineoplastic

All are teratogens

Antibiotics

Few with potential harm

Tetracyclin : no anomalies in the first trimester but in second it associate with yellow teeth , hypoplasia of enamel & bone

Streptomycin : eight cranial nerve damage with hear defect

Anticoagulant

Warfarin : increase risk of abortion , IUGR ,CNS defect , still birth & fetal warfarin syndrome

- Heparin : dosenot cross the placenta

Anticonvulsant :

Epileptic patient faces increase risk of fetal abnormalities

- Phenytoin : causes fetal hydantoin syndrome

Which characterize by : craniofacial , limb defect , growth deficiency mental retardation , cardiovascular abnormalities

- Valproic acid (depakene)

Increase risk of open neural tube defect , hypospadias

- Carbamazepine (tegretol)

Causes craniofacial , finger nail hypoplasia , developmental delay

Hormones :

Estrogen + progestgen causes musculinization of female genitalia

Antihypertensive

- ACEI causes fetal renal failure
- Beta – blocker : causes IUGR , IUD

Oral hypoglycemic :

Induce fetal & neonatal hypoglycemia not teratogenic

NSAID ;

Mefenemic acid : causes early closure of ductus arteroisus , fetal demis , abortion

Antenatal care

- Is the clinical assessment of the mother and the fetus during pregnancy for the purpose of obtaining the best possible outcome for both

Aim

1. Maternal health checks
2. Evaluation of fetal health and development
3. Disease screening
4. Analysis of risk development of complications
5. Provide advice and educations
6. Prenatal diagnosis of fetal anomalies
7. Opinion regarding timing and mode of delivery

Regular antenatal care :

Time women need to be seen in anc clinic vary , first visit should be arranged as early as possible

4 weeks until 30 weeks

Fortnightly until 36 weeks

Weekly there after

Not all anc has to be done in hospital (practitionar & midwife) costy & reduce hospital admission

Booking visit :

1. History (general medical , family ,past obstetrical , present pregnancy)
2. Age
3. Lmp(naegel' rule)
4. Examination : (weight , height ,abnormal gait)
5. Breast examination
6. B.p recorded
7. Heart & lung
8. Teeth & gum
9. legs

- Abdominal examination & auscultation of FHR not before 24 weeks
- Vaginal examination : not in all clinic ,to assess size , position of uterus ,any extrauterine abnormalities (fibroid)
- Take cx smear for cytology
- Idea about the shap of pelvis

Investigation:

1. Blood : Hb % ,ABO & RH ,Hb electrophoresis
2. Serological test for rubella , syphilis ,HIV antibodies
3. RBS
4. USS :confirm pregnancy ,gestational age exclude abnormality
5. Urine : presence of sugar , infection

Screening :

1. Biochemical screening for chromosomal abn. e.g HCG ,osteriol ,alfa fetoprotein
2. Invasive : CVS ,amniocentesis

Subsequent visit :

At each visit BP,urine test for protein ,maternal wt ,(not more than 12 kg through out whole pregnancy), HB, fundal height

- ***Advices to pateint***
  - Attend educational classes
  - Alievate anxiety about labour
  - Explain stages of labour
  - Discuss use of analgesia durng labour

DEIT

Daily requirement 2400calories ,poor deit associated with risk of preterm labour

↑protein 2\3 of animal origin e.g meat, egg , fish

↓CHO to compensate for protein intake

- In latter half of pregnancy ↑calcium intake

Phosphores & iron

Ca : non preg 0.5g

preg 1.5g

Iron requirement 3.5 mg ,iron suppliment should be given from early pregnancy until 3 months after delivery

Folic acid non preg 50µg

preg 400µg

Rest & exercise

encourge to continue all ordinary activities , adequate sleep

Regulation of bowel

Constipation is troublesome ,diet (fruit ,bran & vegetables) if not mild senna

Coitus

not harmful unless bad obstetrical history

Breast

Nipples should be examined to see whether nipples are retracted

1. Nipples should be pinched to makeit protruded
2. Ordinary wash is enough
3. Dry skin treated with cream
4. Breats should be supported with well fitted brassiere

Toxoid

- Explaine it is safe
- Injection site ewollen , red & painful
- First : at 4 th month
- Second : 6 weeks after
- Third : year after