

Maternal diseases in pregnancy

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BASIC FACT !!!



- **Obstetrician doesn't know all about each disease**
- Multidisciplinary access!!
- Extremely important is to plan pregnancies in those circumstances !!!
- Direct inter-specialist communication
- Such pregnancy should be monitored in "big" centers

Mothers heart diseases

- 1% of all pregnancies

Most of them are:

- Congenital heart diseases
- Rheumatic fever
- Ischemic heart diseases
- Cardiomyopathy

HEART DISEASES IN PREGNANCY

US Obstetric Society (1952):

- Compensated - no limits in physical activity
- Subdecompesated – normal daily physical activity causes shortness of breath, palpitations, fatigue, chest pain
- Decompensated - the smallest effort causes problems
- Disturbances even when resting

PHYSIOLOGY

- circulating blood volume increases 40%
- blood cell volume increases 30%
- the result is the physiological anemia, which progresses to ~33. weeks
- placenta reduces peripheral vascular resistance (left – right shunt)
- ideally, arterial (systolic & diastolic) pressure slightly decreases

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Pre-existent heart disease ⇒ much greater significance!

Delivery mode choice

- Caesarean section is a surgical procedure ⇒ risk & possible complications
- vaginal delivery is risky too
- epidural analgesia, labor vacuum extraction, etc. can significantly change the characteristics of vag. delivery in the context of heart disease
- Optimal delivery mode (and time): team decision

Decision

- It is not about good and bad decision dilemma.
- It is the choice between two different ways risky possibilities.
- Pregnant woman, her family, and the whole society must be aware of this.



LUNG DISEASES

Bronchial asthma

- 1% women in reproductive age
- Drugs:
 - Ventolin (salbutamol) - tocolitic agent
 - Corticosteroids - except dexamethasone and betamethasone, they do not pass placental barrier
 - Aminophyllin – acceptable during pregnancy and lactation

DRUGS DURING PREGNANCY & LACTATION



Category A

Adequate and well-controlled studies have failed to demonstrate a risk to the fetus in the first trimester of pregnancy (and there is no evidence of risk in later trimesters).

Category B

Animal reproduction studies have failed to demonstrate a risk to the fetus and there are no adequate and well-controlled studies in pregnant women.

Category C

Animal reproduction studies have shown an adverse effect on the fetus and there are no adequate and well-controlled studies in humans, but potential benefits may warrant use of the drug in pregnant women despite potential risks.

Category D

There is positive evidence of human fetal risk based on adverse reaction data from investigational or marketing experience or studies in humans, but potential benefits may warrant use of the drug in pregnant women despite potential risks.

Category X

Studies in animals or humans have demonstrated fetal abnormalities and/or there is positive evidence of human fetal risk based on adverse reaction data from investigational or marketing experience, and the risks involved in use of the drug in pregnant women clearly outweigh potential benefits.

<https://www.drugs.com/pregnancy-categories.html>



Category A

Example drugs or substances: levothyroxine, folic acid, liothyronine

Category B

Example drugs: metformin, hydrochlorothiazide, cyclobenzaprine, amoxicillin, pantoprazole

Category C

Example drugs: tramadol, gabapentin, amlodipine, trazodone

Category D

Example drugs: lisinopril, alprazolam, losartan, clonazepam, lorazepam

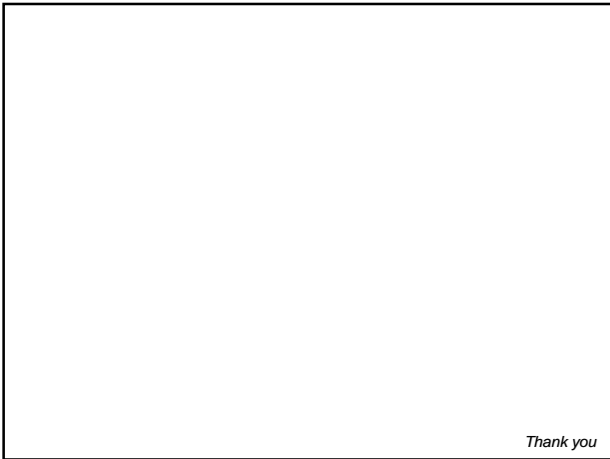
Category X

Example drugs: atorvastatin, simvastatin, warfarin, methotrexate, finasteride

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The screenshot shows the TOXNET search interface. At the top, it says 'TOXNET TOXICOLOGY DATA NETWORK'. Below that, there are navigation links: 'Mobile', 'Help', 'FAQs', 'TOXNET Fact Sheet', and 'Training Manual & Schedule'. The main heading is 'TOXNET Home > Multi-database Search Results'. There are three tabs: 'TOXNET SEARCH RESULTS' (selected), 'BROWSE TOXNET', and 'ADVANCED SEARCH'. A search bar contains 'loratadine'. Below the search bar, there are options for 'Search Term' (singular/plural), 'Records with' (all of the words), and a checkbox for 'Include Synonyms and CAS Numbers in Search'. Below this, a note states: 'TOXNET databases use unique formats. Only one record from each of the selected resources appears below. Click on "More Results" to see all records retrieved for your search. (Which Resource Should I Use?)'. There are links for 'Search Details', 'History', and 'My List'. The results are listed in a table with columns for 'TOP RESULTS', 'DATABASE', and 'ADD TO MY LIST'. Two results are shown: 1. Evaluation of the pharmacokinetics and electrocardiographic pharmacodynamics of loratadine with concurrent administration of ketoprofen or cimetidine. (TOXLINE, Nov 1994; 667) [PubMed] PubMed Citation. 2. Pregnancy outcome after gestational exposure to loratadine or antihistamines: a prospective controlled cohort study. (DART, Nov Results (30)) [PubMed] PubMed Citation.

www.toxnet.nlm.nih.gov/



Thank you