5.4 Medication Choices (20 min)

Lecture

Please watch the third part of the lecture on chronic hypertension and superimposed preeclampsia by Dr. Diana Wolfe (Assistant Professor in the Department of Obstetrics & Gynecology and Women's health, Division of Maternal Fetal Medicine at Albert Einstein College of Medicine).
Before you continue with watching the next part of the lecture, please take a moment to think about the following question: Why shouldn't you use Diuretics in preeclampsia or IUGR?
Please take another moment to think of ways you can monitor the fetal well-being in your own setting. After this, you can continue with watching the last part of this lecture below.

Overview

Below you can find the overview of medications as presented in the lecture.

Agent	Mechanism of action	Cardiac output	Renal blood flow	Maternal side effects	Neonatal side effects
Thiazide	Initial: ↓ plasma volume and cardiac output	↓	↓	Electrolyte depletion, serum uric acid increase, thromocytopenia, hemorrhagic pancreatitis	Thrombocytopenia
	Later: ↓ total peripheral resistance	=	↑ or =		
Methyldopa	False neurotransmission, CNS effect	=	=	Lethargy, fever, hepatitis, hemolytic anemia, positive Coombs test	
Hydralazine	Direct peripheral vasodilatation	↓	↑ or =	Flushing, headache, tachycardia, palpitations, lupus syndrome	
Prazosin	Direct vasodilator and cardiac effects	↑ or =	=	Hypotension with first dose; little information on use in pregnancy	
Clonidine	CNS effects	↑ or =	=	Rebound hypertension; little information on use in pregnancy	
Propranolol	B-adrenergic blockade	↓	↓	Low uterine tone with possible low placental perfusion	Depressed respiration
Labetalol	A and β-adrenergic blockade	=	=	Tremulousness, flushing, headache	Depressed respiration
Reserpine	Depletion of norepinephrine from sympathic nerve endings	=	=	Nasal stuffiness, depression, high sensitivity to seizures	Nasal congestion, more respiratory tract secretions, cyanosis, anorexia
Enalapril	ACE-inhibitor	=	=	Hyperkalemia, dry cough	Anuria
Nifedipine	Calcium channel blocker	=	=	Orthostatic hypotension, headache, tachycardia	

Discussion

Methyldopa, Labetalol and Nifedipine are the best choices for treatment of hypertension in pregnant women. Methyldopa is the only drug whose safety for infants has been demonstrated in long-range follow-up assessments. However, Dr. Wolfe pointed out that the choice of medication is depending on the drugs available.

We would like to discuss what medications you prescribe for patients with hypertension in pregnancy. Please add a topic in the discussion forum below. Write down what is commonly used as an anti-hypertensive drug in your hospital, including dosage. Discuss the pros and cons of this drug. Why is it the drug of choice in your hospital?