Progestins and pregnancy disorders

Out of all progestogens only two progestogens should be considered for prevention or treatment of pregnancy disorders: 1. Micronised Progesterone (Prog) 2. Dydrogesterone (Dydro). Basic and clinical studies have demonstrated that besides the progestogenic effect on the endometrium, immunregulatory mechanisms play a role for proper implantation and pregnancy progression. Prog and Dydro have an impact on placentation, vascular development and structure as well as blood flow. The three major clinical pregnancy disturbances will be discussed: 1. Threatened/habitual miscarriage 2. Preterm labor / preterm delivery 3. Preeclampsia. In randomized studies it was clinically proven that in women with threatened miscarriage and intact pregnancy progestogens such as Prog and Dydro can significantly improve pregnancy outcome. This also applies for women with a history of recurrent (habitual) miscarriage. Prevention and treatment concepts will be delineated. Preterm labor and preterm delivery are related to uterine contractions and cervical incompetence. These events can be prevented or treated by progestogens. Randomized, prospective clinical studies have shown a significant risk reduction of preterm labor and preterm delivery by Prog or Dydro. So far, indications are history of preterm labor or short cervix. If labor has already started effective treatment can be achieved with progestogens as long as there are intact membranes. In animals and in humans Prog or Dydro reduce the blood pressure in normal and hypertensive state. This appears to be related to the antimineralocorticoid action. Hypertension is one of the crucial classical clinical features of preeclampsia. Only limited data are available which indicate the possibility of prevention as well as treatment with Prog. Recently, it was shown that Dydro can significantly (p<0.001) reduce the onset of preeclampsia.