WELLINGTON

OBSTETRICS

HIGH BLOOD PRESSURE IN PREGNANCY

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HIGH BLOOD PRESSURE IN PREGNANCY

TYPES OF HYPERTENSION IN PREGNANCY

Gestational Hypertension

Blood pressure rises above 140/90 mmHg after 20 weeks of pregnancy but was normal prior. It does not produce any other symptoms and usually returns to normal soon after the birth of your baby.

Pre-Eclampsia

A medical condition of pregnancy involving high blood pressure and usually protein in the urine. This presents after 20 weeks of gestation.

Chronic Hypertension

High blood pressure is present before and during your pregnancy, which persists after the birth of your baby.

TREATMENT FOR HYPERTENSION

Gestational and chronic hypertension can be treated with medication to lower your blood pressure, although this is not always required. Several medications have been used safely in pregnancy for many years; sometimes it is necessary to take more than one type of medication to control your blood pressure.

Not all medications are suitable for use during pregnancy; therefore, if you have chronic hypertension and are already taking medication, you may need to change to an alternative treatment during your pregnancy.

PRE-ECLAMPSIA

Pre-eclampsia is a condition that typically occurs after 20 weeks of pregnancy. It is a combination of raised blood pressure (hypertension) and protein in your urine (proteinuria). The exact cause of pre-eclampsia is poorly understood but is most likely related to placental function.

Pre-eclampsia affects the health of approximately 1 in 100 pregnant women and their babies. If you have had pre- eclampsia before, have a family history of pre-eclampsia, are diabetic or have a multiple pregnancy, you are more at risk of developing pre-eclampsia with this pregnancy. However, any pregnant woman can develop pre-eclampsia.

You may feel perfectly well in the early stages of pre-eclampsia and it is not until your condition deteriorates that you may experience any symptoms. It may be picked up at your routine antenatal appointments when you have your blood pressure checked and urine tested.

These symptoms may include:

- persistent headaches
- oedema (swelling) in your hands, feet, legs and face
- visual disturbances such as seeing stars or spots, or having blurred vision
- heartburn or pain under your rib cage
- vomiting or feeling generally unwell
- a decrease in your baby's movements.

It is very important that you tell your Obstetrician if you experience any of these symptoms.

It is important to know if you have the condition because, in a small number of cases, it can develop into a more serious illness. Severe pre-eclampsia can be life threatening for both mother and baby. Severe pre-eclampsia may progress to convulsions or seizures before or just after the baby's birth. These seizures are called eclamptic fits and are rare, occurring in only one in 4000 pregnancies.

Your doctor will look for certain signs when assessing you for pre-eclampsia, including:

- high blood pressure
- protein in your urine
- abnormal blood tests
- these tests assess how well your liver and kidneys are functioning and how well your blood is clotting—pre-eclampsia effects these areas in particular
- brisk (quick) reflexes—this is how your joints (e.g. elbows or knees) move when lightly tapped.

The doctor will also assess how your baby is coping by:

- monitoring your baby's heart rate pattern for 20 to 40 minutes (or longer, if necessary) using a cardiotocograph (CTG) machine
- an ultrasound to assess: your baby's growth, how well the placenta is working and how much fluid surrounds your baby.

HOW MAY PRE-ECLAMPSIA AFFECT MY BABY?

Pre-eclampsia affects the development of the placenta (afterbirth), which may prevent your baby growing as well as it should. There may also be less amniotic fluid around your baby.

If the placenta is severely affected, your baby may become very unwell. In some cases, the baby may even die in the womb. Monitoring aims to pick up those babies who are most at risk.

WHO IS AT RISK OF PRE-ECLAMPSIA AND CAN IT BE PREVENTED?

- Pre-eclampsia can occur in any pregnancy but you are at higher risk if:
- your blood pressure was high before you became pregnant
- your blood pressure was high in a previous pregnancy
- you have a medical problem such as kidney problems or diabetes or a condition that affects the immune system, such as lupus.

If any of these apply to you, you should be advised to take low-dose aspirin (75-100 mg) once a day from before 16 weeks of pregnancy, to reduce your risk.

The importance of other factors is less clear-cut, but you are more likely to develop pre- eclampsia if more than one of the following applies:

- this is your first pregnancy
- you are aged 40 or over
- your last pregnancy was more than 10 years ago
- you are very overweight – a BMI (body mass index) of 35 or more
- your mother or sister had pre-eclampsia during pregnancy
- you are carrying more than one baby.

If you have more than one of these risk factors, you may also be advised to take low-dose aspirin once a day from before 16 weeks of pregnancy.

TREATMENT OF PRE-ECLAMPSIA

Admission to Hospital

Whether you are admitted to hospital for observation or allowed to rest at home will depend on all the above assessments. Because pre-eclampsia can get worse quickly it is very important that you stay near your hospital and notify your Obstetrician if you experience any of the symptoms mentioned. Without treatment pre-eclampsia can, in rare cases, progress to eclampsia.

You will continue to be monitored closely to check that you can safely carry on with your pregnancy. This may be done on an outpatient basis if you have mild pre-eclampsia. You are likely to be advised to have your baby at about 37 weeks of pregnancy, or earlier if there are concerns about you or your baby. This may mean you will need to have labour induced or, if you are having a caesarean section, to have it earlier than planned.

Medication

There are medications that are safe in pregnancy that can reduce your blood pressure to a safe level. This does not stop or treat pre-eclampsia but can make it safe to continue the pregnancy in some cases.

Stopping Pre-Eclampsia

The only cure for pre-eclampsia is the birth of your baby and placenta. Most women who develop pre-eclampsia are more than 36 weeks pregnant, so can either have their labour induced, or undergo a caesarean, giving birth to a healthy, full-term baby.

However, some women will develop pre-eclampsia before their baby is fully matured. Doctors need to carefully balance the need for your baby to grow and mature against how unwell you are. Generally, the best incubator for your baby is your uterus, but pre-eclampsia can restrict the supply of oxygen and nutrients through the placenta, preventing your baby from growing properly.

Your doctor may recommend delivering baby early if there are concerns about your health or your baby's growth. You would usually be given two steroid injections 24 hours apart to prepare your baby's lungs for breathing.

The decision regarding the best time to deliver your baby will be made after discussion with you, your family and the medical and midwifery staff caring for you.

This decision depends on:

- the stage of your pregnancy
- how well controlled your blood pressure is
- the results of blood tests that assess your liver and kidney function and blood clotting ability
- how well your baby is growing
- if there are any signs of placental abruption (separation of the placenta from the wall of the uterus).

An epidural is often recommended during labour, provided that your blood is clotting properly, as this can lower blood pressure. Most babies are born vaginally, but on rare occasions your doctor may suggest a caesarean birth.

PREVENTING ECLAMPSIA

Eclampsia is a very rare, but serious, condition that causes maternal convulsions (seizures) and may lead to stroke, kidney failure or liver failure. It is a medical emergency and may occur if pre-eclampsia is untreated or does not respond to treatment. Medication is given to reduce blood pressure. A medication called magnesium sulphate is used to prevent convulsions. Magnesium sulphate has been used for many years to prevent and treat eclampsia. Recent research indicates that it is also effective in preventing eclamptic fits.

Unless you are close to birthing vaginally, your baby will usually be delivered by emergency caesarean section as soon as you have been stabilised. You will then be cared for in an intensive care environment until you are well enough to be transferred to the postnatal ward.

In very rare cases, eclampsia can happen without any previous symptoms and can also occur after the birth of your baby.

WHAT HAPPENS AFTER THE BIRTH?

Pre-eclampsia usually goes away after birth. However, if you have severe pre-eclampsia, complications may still occur within the first week and so you will continue to be monitored closely. You may need to continue taking medication to lower your blood pressure. You may need to stay in hospital for several days.

When you go home, you will be advised on how often to get your blood pressure checked and for how long to take your medication.

You should have a follow-up with your GP 6–8 weeks after birth for a final blood pressure and urine check.

If you had severe pre-eclampsia or eclampsia, you should have a postnatal appointment with your obstetrician to discuss the condition and what happened. If you are still on medication to treat your blood pressure 6 weeks after the birth, or there is still protein in your urine on testing, you may be referred to a specialist.

WILL I GET PRE-ECLAMPSIA IN A FUTURE PREGNANCY?

Overall, one in six women who have had pre-eclampsia will get it again in a future pregnancy. Of women who had severe pre-eclampsia, or eclampsia:

- one in two women will get pre-eclampsia in a future pregnancy if their baby needed to be born before 28 weeks of pregnancy
- one in four women will get pre-eclampsia in a future pregnancy if their baby needed to be born before 34 weeks of pregnancy

You should be given information about the chance, in your individual situation, of getting pre-eclampsia in a future pregnancy and about any additional care that you may need. It is advisable to contact your Obstetrician as early as possible once you know you are pregnant again.

References

RCOG Greentop Guideline: The Management of Severe Pre-eclampsia/Eclampsia. January 2009. RCOG London UK NICE guidance: The Management of Hypertensive Disorders during Pregnancy. August 2010