Thyroid dysfunction and pregnancy

International Thyroid Awareness Week

The thyroid is a butterfly-shaped gland that sits at the base of the neck, in front of the windpipe. It is the 'master controller' of metabolism.[1]

What are thyroid dysfunctions?

If your thyroid is underactive it produces too little thyroid hormone, resulting in a condition called **hypothyroidism**. People with hypothyroidism use energy more slowly and their metabolism also slows down.[2] However, if your thyroid is overactive the gland releases too much thyroid hormone into the bloodstream, this results in a condition called hyperthyroidism which speeds up metabolism.[3]

Thyroid problems during pregnancy can be very serious and it is of upmost importance that the conditions are caught early. Women with a family history of thyroid dysfunction or other autoimmune conditions, such as type 1 diabetes, should speak to their doctor about screening either before, or in the early stages, of pregnancy. Mothers should be aware of thyroid problems as they are eight times more common in women than in men.[4]

Hypothyroidism

About 5% of pregnant women develop hypothyroidism[5] but it can be easily overlooked as symptoms can be similar to other physical and emotional changes during pregnancy, such as putting on weight, feeling tired, and swelling.

Failure to treat hypothyroidism during pregnancy is potentially very dangerous as it increases the risk of premature birth and leaves the baby at risk of developmental and learning problems. Hypothyroidism can also cause the placenta to separate from the inner wall of the uterus before the baby is born (placental abruption), a potentially life-threatening condition for both mother and baby.[6, 7]

Treatment for hypothyroidism in pregnancy

The aim of hypothyroidism treatment is to replace the missing thyroid hormone in the body. This is done with levothyroxine, a synthetically produced thyroid hormone. The medication can be taken throughout pregnancy and while breast-feeding.[8] Treatment is extremely important as it protects both the mother and the baby from further complications. Pregnant women with hypothyroidism will need more frequent check-ups/monitoring to ensure their dose of levothyroxine is correct. During pregnancy, generally the levothyroxine dosage has to be increased by 25–50%.

Hyperthyroidism

Hyperthyroidism in pregnancy is rare, but if left untreated can be serious for both mother and baby.[9] Problems can include miscarriage, poor growth of the baby in the womb, premature labour and delivery, high blood pressure,[6] physical defects in the baby, and "thyroid storm" where a stressful event or mas-

sive infection can cause a dangerous rise in thyroid hormone levels.[6]

Graves' disease (a disease of the immune system, most common in young women)[3] is the cause of almost all (85%) cases of hyperthyroidism during pregnancy.[9] Pregnant women with Graves' disease may feel better during pregnancy because the immune system is suppressed to protect the baby, but the disease usually worsens again in the first few months after delivery.

Hyperthyroidism in pregnancy is also difficult to diagnose because many of the normal changes during pregnancy are similar to symptoms of the dysfunction, for example, feeling hot, excessive sweating, vomiting or a racing heartbeat.

If you are pregnant and have a heartbeat above 100 beats per minute as well as losing weight, you should see your doctor immediately to rule out hyperthyroidism.

Treatment for hyperthyroidism in pregnancy

Opposite to hypothyroidism, the aim of treatment for patients with an overactive thyroid is to reduce the thyroid hormones within the blood. Antithyroid medication can be taken during pregnancy and should be dosed as low as possible. Alternatively some pregnant women have surgery to partially remove their thyroid gland if they are allergic to antithyroid medication or need it at such high doses that it would damage the baby's thyroid gland.[9] Surgery is carried out in the middle of pregnancy when the risks of miscarriage or premature labour are at their lowest.[9] Another common treatment for hyperthyroidism is radioactive iodine therapy. This is however generally forbidden during pregnancy as this treatment can harm the unborn baby.[9]

For further information

If you would like any further information on thyroid dysfunction, please visit the following websites: www.thyroidweek.com www.thyroid-fed.org

After the birth

Once the baby is born, women who have had previous thyroid dysfunctions may experience a flare up of their disease. Up to 7% of women develop an inflammation of their thyroid gland, at any point up to a year after childbirth.[9] This can cause mild thyroid dysfunction that lasts one or two months and may be associated with postnatal depression.

If you have recently had a baby and your exhaustion continues for more than a few months you should ask your doctor to investigate and rule out thyroid dysfunction as a possible cause.[9]

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