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Review:

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THYROID DISORDERS IN PREGNANCY

1. Why is thyroid hormone important during pregnancy?

Thyroid hormone is important for the normal physical growth and mental development of the baby. Until the 18th week of pregnancy, the baby is entirely dependent on mother for the thyroid hormone supply. Like nutrition which passes from mother to baby, thyroid hormone also passes across the placenta.

2. What are the common thyroid disorders that occur during pregnancy? Why do they develop?

Under-active thyroid (low hormone levels) is the most common among the thyroid disorders that occur during pregnancy. Other disorders like over-active thyroid (excess hormone) are less common. There is an extra demand on the mother's body to produce thyroid hormone during pregnancy. Even if the mother had normal thyroid levels before conceiving, sometimes they are not able to meet out the extra demand for thyroid hormone and hence they develop under-active thyroid problem during pregnancy (called gestational hypothyroidism). This type of thyroid problem often resolves after delivery and the thyroid hormone replacement can be stopped. When there is excess thyroid hormone secretion during pregnancy, it can be due to two types of disorders – one that needs treatment immediately to prevent complications (called Grave's disease) and another which occurs in the context of excess vomiting during first trimester which often does not require treatment and only monitoring (called gestational thyrotoxicosis).

3. What happens when there is thyroid hormone imbalance during pregnancy?

Deficiency of thyroid hormone can cause miscarriage, low birth weight, anemia, still-birth, and high blood pressure in mother during pregnancy. On the other hand, excess thyroid hormone can cause miscarriage, premature birth, low birth weight and high blood pressure in mother. But all of these are preventable if the hormone levels are maintained in range.

4. What are the symptoms of thyroid hormone imbalance during pregnancy?

Symptoms of under-active thyroid and over-active thyroid are often the same as when these occur during non-pregnant times. Under-active thyroid can cause excessive weight gain, tiredness, lethargy, constipation, cold intolerance, etc,. Over-active thyroid symptoms include weight loss, palpitations, shaking of hands, excess sweating, sleeplessness, heat intolerance, etc,.

5. How are thyroid hormone disorders diagnosed during pregnancy?

Most often simple blood tests are enough to make the diagnoses. Sometimes ultrasound may be required. Other special scans like nuclear scans should not be done during pregnancy.

6. How are thyroid disorders treated during pregnancy and whether these treatments are safe during pregnancy?

Under-active thyroid is treated with thyroid hormone replacement in the form of tablets and this is completely safe during pregnancy as long as the levels are monitored and maintained in the desired range. Over-active thyroid is treated with anti-thyroid medications in the form of tablets. Women will need one type of tablet during first trimester and a different type during second and third trimesters. These tablets can rarely have side-effects on the baby in the form of certain birth defects. Therefore, it is important that women with pre-existing over-active thyroid disorder get treated, control the hormone levels, get down to the lowest possible dose of anti-thyroid medication and then conceive. Such planned conception can minimise the chances of such side-effects, which are anyway quite rare. Anti-thyroid medications can also cause side-effects in mother like skin allergy, rarely decreased white cell count and liver problems.

7. What precautions women should take

While trying to conceive, women with under-active thyroid problems should make sure that their hormone levels are adequate. As soon as they fall pregnant the thyroid hormone requirement often increases and hence it is important that they get their thyroid hormone levels checked and increase the dose as needed. It is even more important for women with over-active thyroid problems to control the thyroid levels with the lowest possible dose of anti-thyroid medicines before they conceive. Women who have had radio-iodine treatment for over-active thyroid should not conceive for the next 6 to 12 months depending on the dose administered. Babies of women who have had radio-iodine treatment or surgery for their over-active treatment may develop over-active thyroid features if mothers still have circulating antibodies which were responsible for their over-active thyroid problem.

8. How should the baby be monitored if the mother has thyroid disorder during pregnancy?

Most under-active thyroid disorders are mild and hence no complications are anticipated if adequately treated. While doing routine pregnancy ultrasound scans, women should inform the scan doctor that they have thyroid problem and are taking medications so that they can monitor for specific aspects in the baby. Women with over-active thyroid disorder may need more frequent ultrasound scans and specifically the baby's heart rate and any possible thyroid swelling in the baby are monitored closely. This will help the gynecologist to plan the delivery accordingly.