Thyroid Storm in Pregnancy

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Introduction
Thyroid storm is a rare condition with a reported incidence of between 0.8-1.4 cases per 100,000 in the general population(1), caused by the release of excessive thyroid hormone. Presented is a rare case of thyroid storm in pregnancy, in a patient with previously undiagnosed hyperthyroidism in whom pregnancy itself precipitated a thyroid storm.

Case Report
A 28yr old lady, presented at 6 weeks gestation with shortness of breath, pleuretic chest pain and lower abdominal pain. On admission she was tachypnoeic, respiratory rate of 25, oxygen saturations were 98% on air and the chest was clear on auscultation. There was lower abdominal tenderness but pelvic examination was unremarkable. Differential diagnoses were ectopic pregnancy and pulmonary embolus (PE). Pelvic ultrasound scan showed a viable intra-uterine pregnancy; chest radiograph and CT Pulmonary Angiogram were negative. She subsequently developed a tachycardia, with electrocardiogram changes consistent with a sinus tachycardia of 120 beats/min.
Thyroid function tests (TFT) were performed, in view of the persistent tachycardia; of 130beats/min. TFT's revealed a raised free thyroxine level of 57pmol (9-25pmol) with a suppressed thyroid-stimulating hormone (<0.05 mu/L). She was commenced on propylthiouracil (PTU) 100mg twice a day. Over the next 24 hours her respiratory rate rose to 50 breaths/min, she became anxious, sweaty and severely tachycardic, a diagnosis of thyroid storm was made.
The dose of PTU was increased; beta-blockers and intravenous steroids were commenced. There was gradual clinical improvement and normalisation of her biochemistry. She was discharged on PTU, a reducing dose of steroids and beta-blockers. At discharge she still had a viable pregnancy but later had a social termination of pregnancy.

Conclusion
This case highlights the difficulty in diagnosing hyperthyroidism in pregnancy due to the vague presenting symptoms that often mimic the normal hypermetabolic state of pregnancy or other common early pregnancy pathologies.
Women with treated hyperthyroidism usually have an uncomplicated pregnancy but with a thyroid storm the reported mortality despite treatment is still 20-50%(2).