HYPERCALCEMIC CRISIS SECONDARY TO PARATHYROID ADENOMA IN A PREGNANT WOMAN

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Introduction: Hypercalcemic crisis is a rare, but potentially life-threatening complication of hyperparathyroidism. The physiologic changes in calcium homeostasis associated with pregnancy present unique challenges to both diagnosis and management of hyperparathyroidism and hypercalcemia.

Objectives: NA

Methods: A 28-year-old gravid woman at 24 weeks and four days’ gestation presented with confusion and epigastric pain. She was diagnosed with pancreatitis, acute renal failure, and severe hypercalcemia, with serum calcium 3.63 mmol/L. Given her viable pregnancy, treatment with calcitonin, rather than bisphosphonates, was initiated. Transfer to a centre with a level III neonatal intensive care unit was arranged, as both pancreatitis and hypercalcemia put her at high risk of preterm labour. Neck ultrasound revealed a parathyroid adenoma, which was treated with urgent parathyroidectomy after initial stabilization. Post-operatively, she developed hungry bone syndrome. Thereafter her medical issues resolved gradually, and her pregnancy progressed without any sign of preterm labour or development of any of the hypertensive disorders of pregnancy. At the time of abstract submission she remained pregnant at 37 weeks and one day’s gestation.

Results: Hypercalcemia in pregnancy is often masked by physiologic hemodilution, increased glomerular filtration, and shunting of calcium across the placenta. Nevertheless, morbidity and mortality from severe hypercalcemia are high. Pregnant women are especially prone to nephrolithiasis and pancreatitis, although they can manifest any of the classic signs and symptoms of hypercalcemia. In addition, pregnancy-specific complications include preeclampsia, as well as hypercalcemic crisis at the time of delivery, when calcium shunting across the placenta is abruptly cut off. The fetus may be growth restricted, or may become tetanic in the neonatal period due to hypocalcemic secondary to in utero suppression of the fetal parathyroid glands. Neonatal mortality in these cases can approach 25%.

Conclusion: This interesting case and literature review highlight the unique diagnostic and therapeutic challenges posed by hypercalcemia in pregnancy, due to both the physiologic changes of pregnancy, as well as the lack of robust data on safety and utility of many common investigations and therapies in the pregnant woman.
