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# HYPERCALCEMIA IN NEWBORN SECONDARY TO MALIGNANT HYPERCALCEMIA IN PREGNANT WOMAN WITH METASTATIC BREAST CANCER: A CASE REPORT

Matheus Lavigne Marinho[1], Jéssica de Jesus Simões Evaristo[1], Yuri Vieira Campos Soares[1], Gabriela de Oliveira[1], Luis Henrique Dias Lima[1], Clara Sobreira Dias Lopes[1], Carolina Martins Vieira[1], Theara Cendi Fagundes[1]

[1]Universidade Federal de Minas Gerais – Belo Horizonte (MG), Brazil.

A multipara pregnant woman, 38 years old, presented with an initial suspicion of antibiotic-refractory mastitis. A breast biopsy revealed luminal type B invasive carcinoma and the image showed bone and liver metastases. She developed oligosymptomatic hypercalcemia requiring hydration and underwent cesarean at 35 weeks and 6 days; 2 days later, she received an osteolysis inhibitor, and a week later started chemotherapy. A baby boy was born with Apgar 9/10; hypercalcemia was observed after 12 h; then, he developed lethargy, hypotonia, and bradypnea after 21 h, requiring continuous positive airway pressure and monitoring. He received volume expansion with an improvement in his condition. Signs of breast cancer are confused with physiological breast changes in pregnancy such as engorgement, hypertrophy, and nipple discharge, implying a delay in diagnosis. Hypercalcemia during pregnancy occurs in about 0.03% of women; maternal complications include acute kidney injury, severe hypertension, and pre-eclampsia. Fetal adverse outcomes include intrauterine growth restriction, fetal demise in utero, neonatal hypocalcemia, tetany, and permanent hypoparathyroidism. Primary hyperparathyroidism is the main cause; hypercalcemia from metastatic breast cancer can be due to osteolytic metastases and humoral hypercalcemia of malignancy caused by peptide release related to parathyroid hormone, which promotes bone resorption and renal calcium reabsorption. In cases of malignant hypercalcemia, pamidronate is effective in inhibiting osteolysis, but it reduces uterine contractions and presents a teratogenic risk. Calcitonin is well tolerated during pregnancy but has a limited effect; the use of glucocorticoids can also be considered. In case of maternal hypercalcemia, the newborn's calcium levels must be monitored. Hypercalcemia in pregnancy is a rare condition when cancer-related hypercalcemia may cause great maternal morbidity and fetal and neonatal morbidity and mortality. The manifestations presented by the neonate were compatible with the suspicion of neonatal hypercalcemia. Diagnostic confirmation was made based on the metabolic condition; the basis of emergency treatment is intravenous hydration.

**Keywords:** Breast cancer. Hypercalcemia. Pregnancy.