FLUID MANAGEMENT OF A PATIENT WITH NEPHROGENIC DIABETES INSIPIDUS UNDERGOING CESAREAN SECTION

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Pregnant women undergoing Cesarean section (C-section) for delivery undergo rapid fluid shifts especially due to blood loss during surgery. Typically patients are given sufficient boluses of intravenous fluids (IVFs) to maintain blood pressure, and normal hemodynamics. Patients with nephrogenic diabetes insipidus (DI) makes this more challenging. Nephrogenic DI results from partial or complete resistance of the kidney to the effects of antidiuretic hormone (ADH). Nephrogenic DI can be hereditary or acquired. Acquired nephrogenic DI can be, most often, due to chronic lithium use or hypercalcemia, but can also occur with other disorders. Hereditary nephrogenic DI is largely an X-linked disorder. Nephrogenic DI is not responsive to treatment with hormone replacement. Treatment goal is at minimizing polyuria, avoiding hypernatremia and volume depletion. This case describes a 36-year old woman with hereditary nephrogenic DI who underwent elective C-section. Since this patient is unable to concentrate her urine, isotonic crystalloid IVFs, if given to her, would result in hypernatremia and electrolyte imbalance. Careful management of this patient's intravenous fluids for her estimated blood loss (EBL) during her surgery was necessary.