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ANOTHER REBOUND PHENOMENON: HYPERKALEMIA AFTER CESSATION OF TOCOLYTIC THERAPY *Kuczkowski, K.M. Benumof, J.L. Anesthesiology and Reproductive Medicine, University of California, San Diego, CA* Introduction: The occurrence of hypokalemia during the use of beta-adrenergic tocolytic agents for the treatment of preterm labor (PTL) is a common side effect of the therapy (1). However, there have been no reports of hyperkalemia occuring after the cessation of beta-adrenergic tocolytic therapy for PTL; we herein present such a case. Report of case: 21 y/o G2P1 female with the diagnosis of PTL at 32 wks received beta-adrenergic tocolytic therapy with iv terbutaline. The tocolytic therapy proved unsuccessful despite maximal dosage and C-section was indicated for progression of the PTL and breech presentation. Tocolytic therapy was discontinued and approximately 30 minutes later the ECG showed tachycardia of 120 beats/min., premature ventricular contractions (PVCs) and peaked T waves. Serum electrolytes were obtained and potassium level was 6.8 mmol/L. No treatment was initiated. Uneventful abdominal delivery was performed under spinal block with 12 mg of 0.75% bupivacaine and 10 mcg of fentanyl.Five lead ECG monitoring did not record any new changes intraoperatively. Serum potassium, the T wave and the heart rate returned to normal 3 hours after iv terbutaline had been terminated. Discussion: Ritodrine and terbutaline are the most commonly used beta-adrenergic tocolytic agents. The maternal side effects of tocolytic therapy include hypotension, cardiac arrhythmias, myocardial ischemia, pulmonary edema and hypokalemia. The cardiovascular effects of beta-adrenergic agents persist for 60-90 min. after therapy is discontinued. The occurrence of hypokalemia during tocolytic therapy with beta-adrenergic agents is well established. No adverse side effects associated with hypokalemia have been reported. Our report appears to be the first to link cessation of terbutaline therapy of PTL to rebound hyperkalemia. The mechanism of the hyperkalemia remains unclear. We speculate that the increase in serum potassium might have resulted from release of intracellular potassium back to the extracellular compartment following cessation of terbutaline therapy. Hyperkalemia may cause significant cardiovascular complications including sudden asystole. This report emphasizes the need to monitor potassium levels before, during and after beta-adrenergic therapy for PTL. Conclusion: In summary, this case should serve as warning that unusual side effects such as rebound hyperkalemia might occur after beta-adrenergic tocolytic therapy and require increased vigilance. *Am J Obstet Gynecol 1983; 145: 1-6.*

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COMBINED SPINAL EPIDURAL ANESTHESIA: A NEW ANESTHETIC OPTION FOR REPEAT CESAREAN SECTION IN A MORBIDLY OBESE PARTURIENT *Kuczkowski, K.M. Benumof, J.L. Anesthesiology and Reproductive Medicine, University of California, San Diego, CA* Introduction: Combined spinal epidural anesthesia (CSEA) has become an attractive alternative to continuous epidural technique for repeat C-section of "uncertain" duration. However, due to increased skin-epidural space distance and lack of appropriate needle design, the advantages of this technique have not been routinely available to morbidly obese patients. We present a case of a morbidly obese parturient who underwent an elective repeat C-section under CSEA with a newly introduced needle set, specifically designed for morbidly obese patients. Report of case: A 32 y/o 172 cm, 209 kg G4P3 female required an elective repeat x 4 C-section. Her previous 3 C-sections were performed sequentially under single dose spinal, continuous epidural and continuous spinal anesthesia. Unfortunately, proper placement of the epidural catheter required multiple attempts and the epidural anesthetic eventually proved inadequate and needed iv ketamine supplementation. The continuous spinal resulted in post-dural puncture headache. We opted to proceed with a single interspace needle-through-needle CSEA, which was performed in a standard manner with the newly introduced 17G x 125 mm epidural needle (Arrow, model # NPx7806) and the 26G x 160 mm spinal needle (Arrow, model # GM25160). A subarachnoid injection of 12 mg of 0.75% bupivacaine with 10 mcg of fentanyl and 200 mcg of epinephrine provided excellent operating conditions for 142 minutes. As anticipated subsequent extension of anesthesia with 3 ml epidural incremental injections of 2% lidocaine (9ml total) was required to complete the surgery. Discussion: The CSEA technique provides a rapid onset of dense spinal block combined with the temporal flexibility of epidural anesthesia via catheter (1). The ability to extend the block in time should the duration of surgery outlast the duration of spinal block maximizes the benefits of regional anesthesia and eliminates the risks of general anesthesia to both the mother and fetus. Since most C-sections in morbidly obese patients require longer operative time, the CSEA technique may be uniquely advantageous for these patients. Conclusion: With the introduction of new (longer) needle design, the CSEA technique should become an attractive anesthetic option for the morbidly obese patients. *1. Reg Anesth 1997; 22:406-423.*