NEPHROLOGY

*Nephrology* **16** (2011) 349–350

# Correspondence

## EPLERENONE FOR GITELMAN SYNDROME IN PREGNANCY

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Gitelman syndrome (GS) is an autosomal recessive renal tubulopathy because of mutations in the gene for the thiazide-sensitive sodium chloride co-transporter in the distal convoluted tubule. GS is characterized by hypokalaemia, secondary hyperaldosteronism, hypocalciuria and hypomagnesaemia. Little is known about GS in pregnancy. Eplerenone is an aldosterone antagonist and potassium-sparing diuretic used to treat hypertension and cardiac failure. We report the use of eplerenone to treat GS in pregnancy with a successful outcome for mother and baby.

A 21 years old nulliparous woman presented with long-standing lethargy, muscle cramps, nausea, thirst and nocturia. Serum potassium was 2.6 mmol/L, urine potassium was inappropriately high consistent with renal loss, there was mild hypomagnesaemia, hypocalcuria and secondary hyperaldosteronism. She denied diuretic use. She had otherwise been well with no significant past medical history. GS was confirmed by DNA sequence analysis revealing compound heterozygosity with pathogenic mutations in exon 18 (2186G > T) and exon 25 (2872A > T) in the SLC12A3 gene. She was intolerant of oral potassium and magnesium supplements, spironolactone and non-steroidal anti-inflammatory drugs because of nausea, and intolerant of amiloride because of tinnitus. Treatment with a combination of eplerenone 50 mg twice a day and perindopril 2.5 mg each morning resulted in resolution of her symptoms and a serum potassium at the lower end of the normal range. After preconception counselling her perindopril was ceased, and she elected to fall pregnant while continuing treatment with eplerenone. Other than intermittent vomiting in first trimester her confinement was uneventful, with her serum potassium ranging between 2.6 and 2.9 mmol/L, a healthy baby girl weighing 3630 g born by vaginal delivery at 39 weeks gestation. The babies' potassium was normal. Two years post delivery mother and baby are well.

Twelve pregnancies to mothers with GS have been described previously, all with an uneventful pregnancy course and excellent outcome, despite inability to normalize maternal serum potassium and magnesium levels even with large doses of oral supplements.[1,2] The aim in pregnancy should be to give adequate therapy to prevent maternal symptoms. Spironolactone and amiloride have been used in pregnancies complicated by GS syndrome in addition to electrolyte supplementation. Amniotic fluid levels should be monitored as oligohydramnios was reported in 5 of the 12 pregnancies. Eplerenone was used in our mother because of her intolerance to spironolactone, amiloride and oral potassium and magnesium supplements. We are only aware of one previous report of eplerenone use in pregnancy, commenced at 32 weeks gestation in a 41 years old woman with diastolic heart failure.[3] A healthy newborn was delivered, the gestation was not stated. In animal studies the only noticeable risk of foetal abnormalities occurred when laboratory animals were given doses well over 1000 times the recommended daily dose of eplerenone. Eplerenone is category B in pregnancy. The most common side-effect of eplerenone is hyperkalemia, necessitating close monitoring in individuals with diabetes mellitus and proteinuria, heart failure or those who are taking moderate CYP450 3A inhibitors.

In conclusion, we report the safe and effective use of eplerenone throughout pregnancy by a mother with GS.

Accepted for publication 1 August 2010.

doi:10.1111/j.1440-1797.2010.01396.x

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## TRANSPLANT KIDNEY HERNIATION IN AN ELDERLY PATIENT

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A 67 year old man developed left lower quadrant swelling 3 weeks after renal transplant. Computer tomography (CT) revealed herniation of the allograft beyond the abdominal cavity (Fig. 1a). Both the swelling and graft function worsened. Serial CT demonstrated perinephric collection (arrows) around the herniated graft kidney, with hydronephrosis and hydroureter (Fig. 1b). Ultrasound-guided aspirate showed that the collection was a lymphocele, and a JJ stent was