

Kidney Stones in Pregnancy Tied to Preterm Birth

BY BETSY BATES

Los Angeles Bureau

ANAHEIM, CALIF. — Women admitted to the hospital for nephrolithiasis in pregnancy have a nearly 80% elevated risk of preterm delivery, according to a retrospective cohort study of more than 2,000 cases in Washington State over 16 years.

The finding, announced at the annual meeting of the American Urological Association, may prompt more definitive treatment of small, asymptomatic kidney stones in women of childbearing age, especially those planning pregnancy.

Small case series dating back to the 1980s have raised the possibility that kidney stones during pregnancy may have an

About 10% of women who were admitted for nephrolithiasis at any point in their pregnancies gave birth early, compared with 6.4% of the control women.

impact on birth outcomes, but the study conducted at the University of Washington in Seattle is believed to be the first large-scale attempt to track cases to delivery.

Dr. Mia A. Swartz and associates in the department of

urology used birth certificate data and hospital discharge records to link peripartum records of 2,239 women who had been admitted to hospitals within the previous 9 months with a diagnosis of nephrolithiasis. These records were matched in a 3:1 ratio with 6,729 women of the same age who gave birth the same years.

The incidence of nephrolithiasis requiring hospital admission in pregnant women was 0.17%. The diagnosis was more frequently seen in white women, those with hypertension, and those with renal disease. Nearly 26% received at least one procedure for nephrolithiasis during hospitalization—most frequently, ureteral stents.

Women hospitalized with nephrolithiasis were significantly more likely to have a diagnosis of pyelonephritis at delivery. However, when investigators statistically controlled for the presence of pyelonephritis, relative risk of delivery at or before 37 weeks remained 1.79 (1.51-2.13).

About 10% of women admitted for kidney stones at any point in pregnancy gave birth early, compared with 6.4% of control women, a highly statistically significant difference.

Neither the trimester during which the nephrolithiasis admission occurred, nor the treatment procedure administered, influenced the results.

Use of tocolytics was highly correlated with preterm birth in the nephrolithiasis cohort, suggesting that the finding represents true preterm labor, rather than induction of early labor to permit treatment of symptomatic kidney stones, Dr. Swartz said during her podium presentation.

The database study captured only women who delivered a live infant after a hospital admission for nephrolithiasis,

missing those treated on an outpatient basis and any who miscarried early in pregnancy, she noted. Further, “it was underpowered to detect rare outcomes, such as infant death.”

Dr. Swartz said that while a large, prospective study would be useful, the findings have “important implications.”

“I believe it provides a basis for counseling women with nephrolithiasis during pregnancy and may prompt definitive management or treatment of small,

asymptomatic stones in women planning pregnancy,” she said.

An audience member questioned that conclusion, saying many young women have small, asymptomatic stones that may not require treatment, “even if they are recurrent stone formers.”

The session moderator, Dr. John D. Denstedt, interjected that his institution takes “a little more proactive approach” that appears to be justified based on the new University of Washington findings.

“We get into a full discussion with these patients with asymptomatic ... stones and what the implications would be if the stone would become symptomatic in pregnancy,” said Dr. Denstedt, professor and chief of surgery at the University of Western Ontario in London.

The shock wave machine is not an option during pregnancy, he said. As a result, many such patients opt for shock wave lithotripsy in advance of becoming pregnant, Dr. Denstedt added. ■

You can prescribe Rozerem for as long as you need to*



Clinical studies show no evidence of potential abuse, dependence, or withdrawal†

- **First and only**—nonscheduled prescription insomnia medication...not a controlled substance and can be prescribed for long-term use¹
- **First and only**—prescription insomnia medication that targets the normal sleep-wake cycle¹
- **First and only**—prescription insomnia medication with no evidence of abuse potential in clinical studies¹
- **First and only**—prescription insomnia medication that does not promote sleep by CNS depression¹
- **One simple 8-mg dose**¹

†Rozerem is not a controlled substance. A clinical abuse liability study showed no differences indicative of abuse potential between Rozerem and placebo at doses up to 20 times the recommended dose (N=14). Three 35-day insomnia studies showed no evidence of rebound insomnia or withdrawal symptoms with Rozerem compared to placebo (N=2082).^{1,2}

*Rozerem™ (ramelteon) is indicated for the treatment of insomnia characterized by difficulty with sleep onset. Rozerem can be prescribed for long-term use.

Important safety information

Rozerem should not be used in patients with hypersensitivity to any components of the formulation, severe hepatic impairment, or in combination with fluvoxamine. Failure of insomnia to remit after a reasonable period of time should be medically evaluated, as this may be the result of an unrecognized underlying medical disorder. Hypnotics should be administered with caution to patients exhibiting signs and symptoms of depression. Rozerem has not been studied in patients with severe sleep apnea, severe COPD, or in children or adolescents. The effects in these populations are unknown. Avoid taking Rozerem with alcohol. Rozerem has been associated with decreased testosterone levels and increased prolactin levels. Health professionals should be mindful of any unexplained symptoms possibly associated with such changes in these hormone levels. Rozerem should not be taken with or immediately after a high-fat meal. Rozerem should be taken within 30 minutes before going to bed and activities confined to preparing for bed. The most common adverse events seen with Rozerem that had at least a 2% incidence difference from placebo were somnolence, dizziness, and fatigue.

Please visit www.rozerem.com

Please see adjacent Brief Summary of Prescribing Information.

Rozerem™
ramelteon 8-mg tablets

Proven for sleep.
Nonscheduled for added safety.