Ondansetron safety during pregnancy and the link between NSAIDs and kidney injury in dehydrated kids

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Each month, Dr. Nahum Kovalski reviews a handful of abstracts from, or relevant to, urgent care practices and practitioners. For the full reports, go to the source cited under each title.

Ondansetron Safe During Pregnancy

Key point: No significant association between the antiemetic ondansetron and adverse pregnancy outcomes.

Citation: Pasternak B, Svanstrom H, Hviid A. Ondansetron in pregnancy and risk of adverse fetal outcomes. *N Engl J Med* 2013;368:814-823.

In this retrospective cohort study, ondansetron had been prescribed for nausea and vomiting in almost 2000 of some 600,000 pregnancies. Ondansetron users were no more likely than nonusers to experience spontaneous abortion or stillbirth, or to have preterm delivery, a small-for-gestational-age infant, or an infant with a major birth defect. ■

NSAIDs Linked to Acute Kidney Injury in Dehydrated Kids

Key point: Commonly used NSAIDs can lead to acute kidney injury in pediatric patients, particularly those suffering from dehydration.

Citation: Misurac JM,k Knoderer CA, Leiser JD, et al. Nonsteroidal anti-inflammatory drugs are an important cause of acute kidney injury in children. *J Ped.*2013; doi:10.1016/j.jpeds. 2012.11.069

Reviewing charts for 1015 cases of pediatric acute kidney injury (AKI) treated at the Riley Hospital for Children in Indianapolis, the authors found that 27 cases (2.7%) were linked to preadmission use nonsteroidal anti-inflammatory drugs (NSAIDs), including 21 instances of acute tubular necrosis and 6 instances of acute interstitial nephritis.

Symptoms on presentation pointing to dehydration included vomiting (74%), decreased urine output (56%), and diarrhea (26%).

The majority of patients (78%) had been using NSAIDs for less than 7 days, and many used ibuprofen (67%), naproxen (11%), or ketorolac (7%). Data available for 75% of patients showed that most had received an appropriate dose (75%).

Although none of the youngsters died or developed permanent kidney failure, 30% had evidence of mild chronic kidney damage persisting after recovery from the acute episode.

NSAIDs are perhaps the most common avoidable AKI risk to which children are regularly exposed, suggesting that renal function be evaluated before NSAID administration.

Although the majority of patients were teenagers (median age, 14.7 years; range, 6 months-17.7 years), AKI effects were particularly severe among children younger than 5 years. Younger patients were more likely than their older counterparts to require peritoneal dialysis (100% vs 0%; $P<.001$) and intensive care unit admission (75% vs 9%; $P=.013$), resulting in a longer hospital stay (median,10 vs 7 days; $P=.037$).

Although the reason remains unknown, the authors surmise that young children may have an increased susceptibility to NSAID-related nephrotoxicity.

The study was limited by its retrospective nature, which hindered the researchers' ability to draw conclusions regarding the temporal connection between NSAID exposure and AKI onset. In addition, the majority of children included in the study had been otherwise healthy, and few serum creatinine levels had been previously drawn. The very presence of an acute illness causing dehydration is also a confounding factor in the development of AKI. ■

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